FINANCIAL TIMES

TUESDAY 15 NOVEMBER 2022 INTERNATIONAL NEWSPAPER OF THE YEAR EUROPE

Tech workers wake up from their dream jobs
SARAH O'CONNOR, PAGE 17

How Kim's crypto criminals help fund regime
BIG READ, PAGE 15

Taiwan tensions overshadow Biden and Xi's push to improve relations

● Three-and-a-half-hour meeting ● Stances on island underlined ● Pledge to keep channels open

MERCEDES RUEHL — BALI
TOM MITCHELL — SINGAPORE
DEMETRI SEVASTOPULO — WASHINGTON

Joe Biden and Xi Jinping used their first in-person meeting as leaders to signal a desire to strengthen US-China ties after relations between the two powers plunged to a multi-decade low.

With Taiwan tensions hanging over the meeting, the two leaders agreed that senior officials would "maintain communication" on a range of transnational issues, including climate change, global economic stability and food security, a White House assessment of the meeting said. The US president added that Antony Blinken, secretary of state, would visit China for talks.

At a news conference after the meeting, which lasted three and a half hours, Biden said he told Xi that US policy on Taiwan had not changed "at all" and that Washington remained committed to a peaceful resolution of tensions. But the White House said that Biden had raised concerns in private with Xi about China's "increasingly aggressive" actions toward Taiwan.

The Chinese foreign ministry said in a statement that Xi warned Biden that Taiwan was at the "very core of China's core interests" and that the issue was "the first red line that must not be crossed in China-US relations".

Biden said he was "not looking for conflict" and that he wanted to manage US-China competition "responsibly". He also stressed that "there need not be a new cold war".

Relations between Washington and Beijing hit a new low in August when China shut some diplomatic and military channels after US House Speaker Nancy Pelosi visited Taiwan.

Beijing also suspended a range of communications with Washington on issues such as climate change and judicial co-operation, as the Taiwan crisis raised fears that an accidental military incident could trigger a larger conflict between the two largest economies.

But a more positive note was struck yesterday with the leaders' first in-person meeting, following five discussions on the phone and on screen.

"In several months, we may look back on the Biden-Xi meeting as the first signs of an inflection point that began to decelerate the spiral towards conflict," said Jessica Chen Weiss, a China expert at Cornell University. "It's encouraging that both sides agreed to empower senior officials to develop foundational principles for the relationship and working groups to make progress on specific issues."

While Biden's public remarks after the meeting were diplomatic, the White House said he also expressed concern about Chinese policy on Xinjiang, Hong Kong and Taiwan.

US officials have increasingly warned about possible Chinese military action against Taiwan but Biden said after the meeting that he did not believe Beijing was planning an "imminent" invasion.

He also said the leaders discussed the Russian invasion of Ukraine and "reaffirmed our shared belief that the threat or the use of nuclear weapons is totally unacceptable". The Chinese foreign ministry made no mention of nuclear weapons in Ukraine in its statement.

The Biden-Xi talks, which were held on the island of Bali on the eve of the G20 summit, came as CIA director Bill Burns warned Russia against using nuclear weapons in the first known in-person meeting between senior officials of the two countries since President Vladimir Putin's invasion of Ukraine.

Burns delivered his warning at a meeting with Russian counterpart Sergei Naryshkin in Ankara, the US said.

Additional reporting by Kathrin Hille in Taipei

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John Browne page 17

> Washington must manage relations with Beijing with care — by ensuring that decoupling does not crash the global economy and that war is avoided
>
> **FT View** Page 16

Joe Biden meets Xi Jinping on the sidelines of the G20 leaders' summit in Bali yesterday, the first in-person meeting since Biden took the US presidency
Kevin Lamarque/Reuters

Briefing

▸ **Binance chief calls for more crypto regulation**
Changpeng Zhao has said no one can be protected from a "bad player" and called for more regulation of the sector.— PAGE 6; DEMOCRATS HIT, PAGE 10; LEX, PAGE 18

▸ **China property reversal**
Shares and bonds in real estate groups have risen sharply as a plan by Beijing to support the property market was welcomed by investors.— PAGE 4; LEX, PAGE 18

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Voting by the accounting firm's UK and US partners on a plan to break it up is set to be delayed to next year in a wrangle over the distribution of assets.— PAGE 6

▸ **Call for slower Fed rises**
Fed vice-chair Lael Brainard has said the US central bank still has "work to do" in its fight against inflation but she backed slowing the pace of rate increases.— PAGE 4

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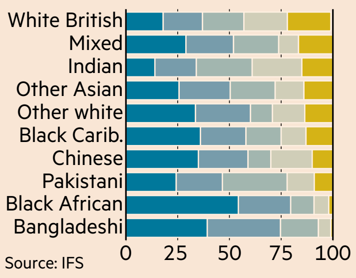
Turkey has blamed the PKK for Sunday's Istanbul bombing that killed six people, and likened the US to a "murderer" for backing Kurdish rebels in Syria.— PAGE 2

▸ **Republicans select leader**
The party will this week press on with a vote that will determine Kevin McCarthy and Mitch McConnell's future and lay bare splits after the midterms.— PAGE 4

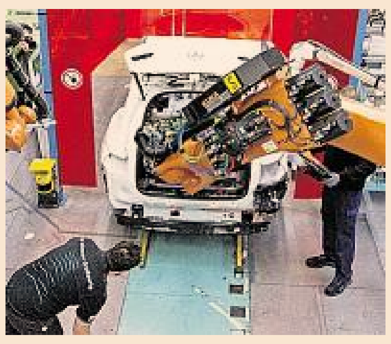
Datawatch

Under-representation
Wealth distribution, GB, 2016-18 (%)



Source: IFS

All ethnic minority groups are under-represented in the top 20 per cent of the wealth distribution in Great Britain. The median white British household has £115,000 in property wealth — the median black British household has none



Minerals race shakes up carmakers' ties to miners

Analysis ▸ PAGE 8

Austria	€4.30	Morocco	Dh50
Bahrain	Din1.8	Netherlands	€4.30
Belgium	€4.30	Norway	NKr45
Croatia	Kn32/€4.25	Oman	OR1.60
Cyprus	€4.00	Pakistan	Rupee350
Czech Rep	Kc120	Poland	Zl 24
Denmark	DKr43	Portugal	€4.00
Egypt	E£59	Russia	€5.00
France	€4.30	Serbia	NewD530
Germany	€4.30	Slovenia	€4.00
Greece	€4.00	Spain	€4.00
Hungary	Ft1350	Switzerland	SFr6.50
India	Rup220	Tunisia	Din7.50
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Luxembourg	€4.30	UAE	Dh23
Malta	€4.00		

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Zelenskyy claims 'beginning of the end of war' on visit to liberated Kherson

FELICIA SCHWARTZ — KYIV

Ukraine president Volodymyr Zelenskyy visited Kherson yesterday, celebrating the southern city's recapture days after the retreat of Russian forces.

"Is it the beginning of the end of the war? Of course . . . we are step by step coming to the temporarily occupied territories," he said in Kherson's main square. "[But] it's a long way, it's a difficult way."

Zelenskyy highlighted the role of western weaponry — particularly US-made Himar advanced rocket systems — in the counteroffensive, one of Russia's biggest setbacks since it launched its full-scale invasion in February. He has also warned that it would take time to restore essential services and law and order in the city.

Asked about the visit, Kremlin spokesman Dmitry Peskov said: "We will leave this without comment. You know this territory is part of the Russian Federation."

Zelenskyy also presided over the raising of the Ukrainian flag in Kherson's square as the national anthem played.

In pictures released by his office with the caption "Kherson — Ukraine", Zelenskyy is seen walking around the city's main square, greeting soldiers and residents. One photo shows the Ukrainian and EU flags flying together.

Zelenskyy and other officials have cautioned that it will take time to restore essential services to Kherson and make it safe for residents to live there again after more than eight months of Russian occupation.

In his overnight address, he said 100,000 local residents remained in Kherson. He said investigators had already documented more than 400 alleged incidents of Russian war crimes.

Ukraine has accused Russia of war crimes in other areas it has retaken such as Izyum in north-eastern Kharkiv province, but western officials fear the scale of atrocities in Kherson could be stark, given the length of time it was under Russian control, Moscow's efforts to assimilate the city and its value as the only regional capital captured during the conflict. Yevhen Yenin, of Ukraine's internal affairs ministry, said Kyiv's forces had discovered torture chambers inside police departments.

Officials have warned residents that Kherson remains dangerous. The general staff of the Ukrainian forces said there was "a high level of mine danger" and an intensification of Russian aerial reconnaissance in the region, indicating Russia may be planning future attacks.

Ukraine's power cut struggle page 2

World Markets

STOCK MARKETS

	Nov 14	Prev	%chg
S&P 500	3985.94	3992.93	-0.18
Nasdaq Composite	11259.03	11323.33	-0.57
Dow Jones Ind	33790.97	33747.86	0.13
FTSEurofirst 300	1705.81	1703.62	0.13
Euro Stoxx 50	3886.57	3868.50	0.47
FTSE 100	7385.17	7318.04	0.92
FTSE All-Share	4067.93	4036.84	0.77
CAC 40	6609.17	6594.62	0.22
Xetra Dax	14313.30	14224.86	0.62
Nikkei	27963.47	28263.57	-1.06
Hang Seng	17619.71	17325.66	1.70
MSCI World $	2674.08	2636.55	1.42
MSCI EM $	935.73	889.60	5.18
MSCI ACWI $	618.66	607.66	1.81
FT Wilshire 2500	5201.26	5149.63	1.00
FT Wilshire 5000	40630.30	40228.27	1.00

CURRENCIES

Pair	Nov 14	Prev	Pair	Nov 14	Prev
$/€	1.033	1.033	€/$	0.968	0.968
$/£	1.173	1.178	£/$	0.852	0.849
£/€	0.881	0.877	€/£	1.136	1.141
¥/$	140.415	139.065	¥/€	145.070	143.606
¥/£	164.748	163.777	£ index	77.773	76.626
SFr/€	0.977	0.977	SFr/£	1.110	1.114

CRYPTO

	Nov 14	Prev	%chg
Bitcoin ($)	16437.62	16305.44	0.81
Ethereum	1232.29	1220.30	0.98

COMMODITIES

	Nov 14	Prev	%chg
Oil WTI $	86.77	88.96	-2.46
Oil Brent $	94.16	95.99	-1.91
Gold $	1759.35	1744.75	0.84

GOVERNMENT BONDS

Yield (%)	Nov 14	Prev	Chg
US 2 yr	4.40	4.32	0.08
US 10 yr	3.87	3.82	0.06
US 30 yr	4.06	4.06	0.01
UK 2 yr	3.18	3.19	-0.01
UK 10 yr	3.36	3.35	0.01
UK 30 yr	3.49	3.49	0.01
JPN 2 yr	-0.06	-0.07	0.01
JPN 10 yr	0.24	0.23	0.01
JPN 30 yr	1.49	1.43	0.06
GER 2 yr	2.17	2.18	-0.02
GER 10 yr	2.15	2.15	-0.01
GER 30 yr	2.10	2.11	-0.01

Prices are latest for edition
Data provided by Morningstar

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INTERNATIONAL

Arms control

CIA chief warns Russia on nuclear attack

Caution delivered during direct contacts between intelligence agency chiefs

FELICIA SCHWARTZ — KYIV
MAX SEDDON — RIGA

The CIA director has warned Moscow against using nuclear weapons in the first confirmed in-person meeting between senior officials of the US and Russia since President Vladimir Putin's invasion of Ukraine.

Bill Burns delivered his warning yesterday at a meeting with Sergei Naryshkin, his Russian counterpart, in Ankara, Turkey, the White House said.

"He is conveying a message on the consequences of the use of nuclear weapons by Russia, and the risks of escalation to strategic stability," it said.

Burns's meeting with Naryshkin comes at a tense juncture in the war.

US officials have expressed concern that Putin could use a tactical nuclear weapon or other weapon of mass destruction on the battlefield, particularly as Russian forces continue to face military setbacks.

Russian forces retreated from Kherson last week, depriving Putin of the only regional capital seized during the nine-month invasion. The Russian president is also facing the prospect of losing a territory he annexed in a ceremony in the Kremlin in September.

When he announced the annexation, Putin said Moscow would use "all the means at its disposal" to protect its new territories and made veiled threats to use nuclear weapons to do so.

But the escalation failed to deter Ukraine, which, with a better-equipped, larger force continued to retake territory around Kherson just days after Putin claimed it was part of Russia.

Losing Kherson, which Russia has tried to frame as a "manoeuvre" rather than a humiliating withdrawal, is one of the biggest setbacks for Moscow yet.

Dmitry Peskov, Putin's spokesman, said yesterday he could "only" declare that Kherson was "territory of the Russian Federation", as Ukraine's president, Volodymyr Zelenskyy, visited the city to a rapturous reception from soldiers and locals, who had spent months under occupation. Russian forces had taken the provincial capital in March.

Nuclear tensions intensified last month after Russia accused Ukraine of preparing to use a crude explosive device with radioactive material known as a dirty bomb, sparking fears that Moscow might be setting up a so-called false flag operation to blame on Kyiv.

But US officials said those fears had calmed after a phone call between western defence chiefs and Sergei Shoigu, their Russian counterpart.

Putin told a conference last month that Russia would not use nuclear weapons in Ukraine because there was "no military or political sense" in doing so, even as he repeated the claims about Ukraine's supposed dirty bomb.

Jake Sullivan, US national security adviser, has also been holding talks with senior Russian officials to try to calm nuclear tensions, according to people familiar with the discussions.

The meetings between the US and Russian intelligence chiefs came as some members of the Biden administration saw an opportunity for possible peace talks, as fighting is expected to slow in the winter.

Mark Milley, chairman of the US joint chiefs of staff, said last week: "It's probably going to be static over the winter; there will be fighting but it will be relatively static and then there will be a window of opportunity for negotiations."

War economy. Infrastructure attacks

Ukraine businesses struggle with power cuts

Blackouts plunge workplaces into darkness and force factories to curb production

FELICIA SCHWARTZ AND ROMAN OLEARCHYK — KYIV

On a weekday at the Lila Cake café in central Kyiv five staff milled about in the gloom waiting for a lunchtime rush they said was unlikely to materialise.

The power was out and the staff had to open the glass doors by hand to anyone wanting to enter. For three days in a row, the café had operated without electricity for 10 hours at a time.

Manager Iryna Mykhailuk said Russian attacks on energy infrastructure that had resulted in rolling blackouts were the latest blow to the business that had reopened recently for the first time since the full-scale invasion in February. About 20 of its 50 staff have been laid off and Mykhailuk is not sure how long the business can stay afloat.

"We have the spirit and desire to stay open," she said, "but for how long?"

Officials say the attacks, which have damaged 40 per cent of Ukraine's energy infrastructure, have added to dire financial pressures as the power cuts force many companies to scale back their activities. Kyiv, the capital, has been the hardest hit.

Ukraine is already facing significant budget shortfalls stemming from the war. It will need $55bn in international assistance for next year, including $38bn to cover the forecast budget deficit and $17bn to rebuild infrastructure, President Volodymyr Zelenskyy told finance ministers at the World Bank and IMF annual meetings last month.

Economy minister Yulia Svyrydenko warned the energy crisis could increase the contraction in gross domestic product beyond a previous official forecast of 35 per cent for 2022. Economists estimate the fall could be up to 40 per cent. Kyiv seized control of five strategic companies last week, and officials said it could take over more if they did not back the war effort.

Some sectors of the economy, such as retail, in cities away from the front lines had reported activity returning to near prewar levels in September, according to Dragon Capital, a Ukraine-based investment company. But the power outages have threatened the recovery.

Making do: a vendor minds her stall during a power cut at Bessarabsky market in central Kyiv
Dimitar Dilkoff/AFP/Getty Images

Dragon Capital said that since October 11, when Russia began to focus its assault on energy infrastructure, footfall had dropped 15 per cent across five malls it owns around Kyiv and in western Ukraine, after rebounding to near prewar levels the month before.

The company is buying generators to keep its malls, offices and warehouses operating and to attract people to them as destinations for power, warmth and internet connections. "Blackouts take out half of the working day," said Tomas Fiala, chief executive of Dragon Capital.

Restaurants, retailers and small businesses that do not have generators or access to prioritised power supplies have suffered the most. Hospitals, public transport and other critical infrastructure are given priority.

But sectors such as IT, where many workers require little more than a charged laptop and stable WiFi, have proven more resilient. Kulraj Smagh, chief executive of Ciklum, an IT outsourcing company based in the UK with 1,500 Ukrainian workers who have remained in the country, said its projects had been largely unaffected and staff had been able to make up any missed work out of hours if necessary.

Manufacturers have shifted production to accommodate scheduled outages. The KMZ factory in the Poltava region east of Kyiv, which makes grain handling and storage equipment, runs its production lines mainly at night to avoid daytime curbs on industry.

Yuriy Ryzhenkov, chief executive of Metinvest, Ukraine's largest steel producer, said its largest mills, the Azovstal site and Ilyich Metallurgical Plant, were in Mariupol and were heavily damaged in the fierce fighting when Russia seized the Black Sea port city in March.

Its remaining plants, at Zaporizhzhia in southern Ukraine and Kamianske in the centre, were operating at 50-65 per cent of normal capacity, he said. Both had generating capabilities that could be deployed if the sites lost power.

Industry representatives met regional administration officials each day to plan power usage based on available capacity and industry needs, he said.

Maksym Timchenko, chief executive of DTEK, Ukraine's largest private power producer, said energy shortages were likely to continue. "Partial improvement is possible but we will definitely not live like before the shelling," he told Ukrainian television.

> 'People get used to it, what else can we do? It's easier for us compared to those on the front lines'

Officials said the attacks were designed to damage morale even as Kyiv's forces made battlefield gains. This week, Russian troops quit Kherson after a counteroffensive in the south and Ukraine retook territory in the east.

German Galushchenko, energy minister, said the electricity and heating infrastructure could be repaired by the end of the year if Russia halted the strikes, but was not optimistic. "It will be hard in the winter, that is for sure," he said. "I feel that they won't stop."

Kyiv city officials said they were preparing for a complete loss of heat, water and power should the attacks intensify. But for now, residents say they are learning to live with the new normal.

In an electronics shop in an underground Kyiv mall last week, salesman Andriy Krainukov said power was off for about eight hours over the day. For much of the time the shop was in the dark, with only a propped-open door indicating it was open. Average business was down about 80 per cent, he said.

"People get used to it, what else can we do?" he added. "It's easier for us compared to those on the front lines."

Additional reporting by Sylvia Pfeifer in London

Istanbul bombing

Turkey lays blame for deadly blast on Kurdish militants

AYLA JEAN YACKLEY — ISTANBUL

Turkey has blamed Kurdish militants for Sunday's bombing in central Istanbul that killed six people and wounded dozens, and likened the US to a "murderer" for its support of Kurdish rebels in Syria.

Istanbul police said 46 people had been detained in connection with the attack in İstiklal Avenue. The primary suspect, identified as a Syrian national who had left the scene by taxi, was in custody. She was a "special intelligence officer" for the armed Kurdistan Workers party and its Syrian affiliate, and had entered Turkey illegally from the north-west Syrian province of Afrin, the police said in a statement.

Süleyman Soylu, the interior minister, said the bombing had been ordered from the town of Kobani in northern Syria, which is held by the US-allied Syrian Democratic Forces, a militia dominated by Kurdish fighters.

Soylu accused the US of culpability in the bombing and dismissed a statement from the White House that expressed sympathy for those who had lost loved ones in the attack.

"I think it is essential to view the condolence message from America as the murderer being one of the first to arrive at the scene of the crime," Soylu said, adding that Turkey would "respond" to this message as well as to those directly responsible for the attack.

Turkey has long demanded that Washington end its support for the SDF, which fought against Isis with the US, because of the militia's ties to the PKK, listed by Washington and Ankara as a terrorist organisation for its four-decade insurgency in Turkey. The US has armed and trained the SDF and has an estimated 800 troops in north-eastern Syria who work with the Kurdish rebels.

A statement posted to a website affiliated with the PKK denied responsibility for the attack. Reuters cited a Turkish official as saying authorities had "not entirely disregarded" Isis as being behind the attack.

The Turkish military has carried out a series of incursions into Syria since 2016 to fight Kurdish forces and Isis, and occupies a swath of Syrian territory along its border. Turkish president Recep Tayyip Erdoğan pledged this year his army would invade again, but analysts said a failure to secure approval from Russia and Iran, which back Damascus, had delayed the operation.

Among those killed in the blast were a young girl and her father, who worked for the ministry of family and social services, Derya Yanık, the minister, said on Twitter. The six victims were all Turkish citizens.

İstiklal Avenue is lined with shops, restaurants and consulates and is a popular destination for Turks and tourists.

The attack echoed a wave of bombings in Turkey in the mid-2010s by Isis and Kurdish militants, in which hundreds of people were killed. It has stoked fears that violence could resume ahead of presidential and parliamentary elections scheduled for June next year.

The attack could also threaten tourism, which is critical to Turkey's crisis-hit economy. Bekir Bozdağ, justice minister, said attackers chose İstiklal with the aim of targeting foreigners.

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World Cup. Qatar 2022

France aim to break cycle of triumph and disaster

Injuries lead coach Deschamps to rejig 'Les Bleus' squad in bid to win trophy for third time

SIMON KUPER

On July 15 2018, France had just won football's World Cup in Moscow, and Russian president Vladimir Putin and Fifa president Gianni Infantino were taking turns to hand out the medals.

French president Emmanuel Macron buzzed around hugging each French player like a brother, even kissing striker Kylian Mbappé on the forehead.

France coach Didier Deschamps had just begun his characteristically understated press conference when a dozen players burst into the room, chanting his name and spraying journalists with energy drinks and champagne. Just before they finally left, their unofficial leader, Paul Pogba, shouted, "Vive la France! Vive la république!"

Oh happy days. Now the French are preparing to defend their World Cup in a different world. Putin will not be handing out the medals in Qatar, and Pogba will not be receiving one: he and fellow midfielder N'Golo Kanté will miss the tournament through injury.

Deschamps remains France's coach but is now saddled with the winner's curse: four of the past five world champions have been knocked out of the next tournament in the first round, including France in 2002. How can *Les Bleus*, with just one win in their past six matches, avoid that fate?

The French have played three of the past six World Cup finals, winning two, but are locked in a cycle between triumph and complacency. After they win, they get slack: 1998 was followed by 2002, and after 2006 came 2010, the French "annus horribilis" in which the team stank out the World Cup while also staging a mid-tournament strike.

This time the world champions may have already got their complacency out of their system. At the delayed Euro 2020 last year, they were leading Switzerland 3-1 with 10 minutes left when they stopped running or concentrating. After conceding two late goals, they were knocked out on penalties.

It may be a blessing if injuries force them to renew in Qatar. Beyond the loss of Pogba and Kanté, mainstays Karim Benzema, Raphaël Varane and Lucas Hernandez may struggle for fitness.

The French are not starting the tournament with the confidence of world champions.

Their three defeats in 2022 are already their joint worst for a calendar year. Two of those were against Denmark, who await them in the group, alongside Australia and Tunisia.

France's biggest worry is in the middle of the park: not one midfielder from 2018 is coming to Qatar. The three-man core will be built around Aurélien Tchouaméni, 22, now established as a starter for both France and Real Madrid. A playmaker who can defend, he appears to have it all. Juventus's Adrien Rabiot should accompany him, along with possibly Youssouf Fofana, who made his debut just two months ago.

At the back the 2018 team is almost intact. Hugo Lloris is playing his fourth World Cup in goal, while Varane, Hernandez and right-back Benjamin Pavard all started in Russia. Up front, no team has greater riches: Antoine Griezmann, Mbappé and Benzema, backed up by the veteran Olivier Giroud.

Deschamps, meanwhile, will be sniffing out complacency. After a decade as *sélectionneur* he remains beloved: the captain who lifted the World Cup in 1998 yet still contrives to look like a gnomish village café proprietor from his native south-west. "DD" has the status to drop any star who is not shaping up.

At best, France can be the perfect combination at this World Cup: humble world champions with a dash of youth. At worst, it is 2002 all over again.

France midfielder Paul Pogba celebrates the 2018 World Cup win

INTERNATIONAL

Putin to dominate G20 Bali summit from afar as conflict divides nations

Russian president is not attending gathering but Ukraine war is expected to overshadow event

HENRY FOY AND MERCEDES RUEHL
NUSA DUA, BALI

Vladimir Putin will not be at this week's meeting of G20 leaders in Bali. But the Russian president and his war against Ukraine, which has deeply divided the world's biggest economies and sparked myriad global crises, will nonetheless dominate proceedings.

The leaders of the majority of the world's most powerful nations have arrived in Indonesia for today's summit opening united by fears over runaway inflation, instability and food and energy shortages, but riven by disagreements over the war, its perpetrator and how the conflict should end.

China and India, the world's most populous countries and two of its six largest economies, have not condemned Putin and his annexation of swaths of eastern Ukraine. Meanwhile other G20 members such as Saudi Arabia, South Africa and Turkey have rebuffed western demands to punish Russia for its invasion.

"This really is the first G20 to take place after the end of the post-cold war era. You know, this is a new world," said Charles Kupchan, senior fellow at the Council on Foreign Relations, a New York-based think-tank.

"We're back in a global landscape in which there is militarised rivalry between the west and Russia. And that rivalry is now extending to China. And as a consequence, the ability of the G20 to function as a co-operative body is very much called into question."

Putin will not attend in person or join the discussions virtually. The presence of his surrogate, Sergei Lavrov, was briefly called into question after reports that Russia's foreign minister had visited hospital after arriving in Bali. He later posted a video showing him preparing for a summit. Russian officials will be part of the formal G20 negotiations, which have so far failed to find consensus.

"There will be no agreement on language condemning Russia's war in Ukraine," said a senior German official of the G20, echoing downbeat assessments from other western delegations.

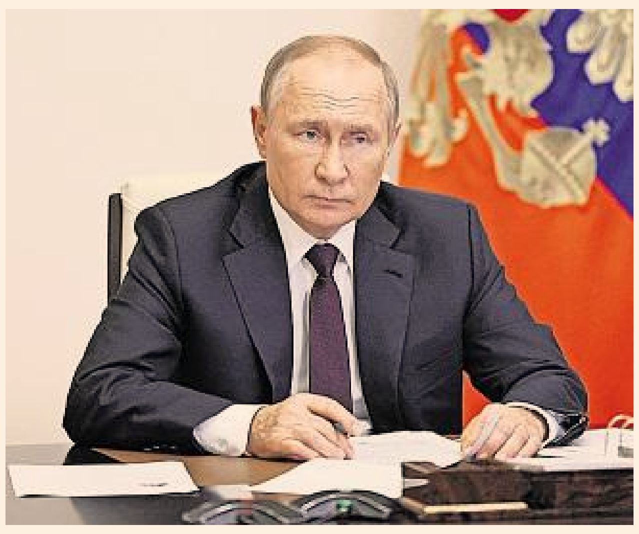
In closed-door meetings to draft the summit communiqué, China has maintained its strong support for Russia, stymying efforts by western officials to include language condemning the war. Meetings of G20 finance, foreign and climate ministers this year all failed to produce a joint communiqué, and Russia and the US failed to agree on language for a joint statement at the conclusion of an east Asia summit in Cambodia on Sunday that was attended by 18 nations.

What is most likely, say people briefed on the G20 discussions, is either a broad, non-specific declaration that this is "not the time for war", or a 19- or 18-country joint statement. Language condemning nuclear escalation is likely to find agreement, the people said.

Indonesian officials are still attempting to convince western leaders to take part in the traditional family photo, people involved in the talks said, amid widespread opposition to appearing alongside Lavrov.

"I would not want to be the Indonesians in the sense that you really are hosting a meeting that is taking place against the backdrop of a level of ideological and geopolitical division that we haven't seen since the Berlin Wall came down," said Kupchan, who was special assistant to former US president Barack Obama.

President's replacement: Russian foreign minister Sergei Lavrov arrives in Bali on Sunday, sent to the G20 summit by his boss, Vladimir Putin, below
Sonny Tumbelaka and Gavriil Grigorov/Reuters



Seventeen leaders are expected to attend in person. The opening discussion was set to focus on the war in Ukraine, with Ukrainian president Volodymyr Zelenskyy scheduled to address the gathering virtually, officials said. A second session will focus on global health, with a third on digital issues.

Putin's absence may increase the focus on Xi, with many fellow G20 members uneasy about his relationship with the Kremlin. The summit comes weeks after Xi tightened his grip on power at the Communist party congress, the US released a new national security strategy singling out the threat from China, and the EU resolved to toughen its attitude towards Beijing.

Asked about China's role in the communiqué negotiations and whether its defence of Russia's interests would make a consensus impossible, a French official said: "It's too early to prejudge the results of the negotiations . . . We sincerely think there is space for discussions with China on this topic."

But analysts played down the possible success of sideline talks. Such scepticism was borne out by the lack of progress in the Biden-Xi meeting, with the two leaders largely restating existing positions, notably on the future status of Taiwan.

Speaking before the meeting, Drew Thompson, a visiting senior research fellow at National University of Singapore's Lee Kuan Yew School of Public Policy, said "the margins of a multilateral meeting is not the venue to resolve such strategic differences, so I do not think either head of state is coming to the table prepared to roll up their proverbial sleeves to work out compromises."

Experts said Japan was one of the few bilateral relationships where China wanted to change the dynamic and improve ties, so Xi could be in a position to make offers or compromises.

"At least with China the actors are familiar to countries such as Japan and South Korea — and especially for Indonesia, the host," said a second western official.

> 'We want to be open for dialogue with countries even if they . . . don't support the sanctions [against Moscow]'

Western officials are also keenly aware that for many non-G7 states, the resulting economic challenges, food shortages and energy concerns are more important than the Ukraine conflict itself, and that they must be mindful of finding solutions to support these countries rather than just demanding they join condemnation of Moscow.

"We want to avoid the formation of fronts within the G20. We want to be open for dialogue with countries, even if they . . . don't support the sanctions [against Moscow]," said the senior German official. "The G20 accounts for 75 per cent of global trade and 60 per cent of the world's population. We can't just leave these countries to Putin and his propaganda. We need to send a signal."

Western leaders will also use the summit to seek support for a proposed price cap on Russian oil exports, European officials said, while attempting to find solutions to food and fertiliser shortages caused by the invasion, scarcities that Moscow has blamed on western sanctions.

"Climate change, nuclear proliferation, pandemics, global energy: you desperately need some kind of a forum that advances global governance," said Kupchan. "And the G20 is the perfect place, but I fear it's really going to be paralysed."

Additional reporting by Leila Abboud in Paris and Guy Chazan in Berlin

COP27 meeting

US and China restart talks on climate change and food security

AIME WILLIAMS AND DEMETRI SEVASTOPULO — WASHINGTON

The meeting between Joe Biden and Xi Jinping has sparked the US and China to restart stalled climate negotiations, bringing relief to those gathered in Egypt at the UN COP27 summit on how to limit catastrophic global warming.

The leaders agreed to "empower key senior officials to maintain communication and deepen constructive efforts" on a range of transnational issues, including climate change, global economic stability and food security, a White House readout of the meeting said.

The White House said the leaders "spoke candidly" about many issues at the meeting in Bali. While Biden raised objections about Chinese policy in Hong Kong, Xinjiang and Taiwan, he made clear the US would work with China on critical global issues where they had a mutual interest.

At last year's UN COP26 summit in Glasgow, Washington and Beijing made a rare joint declaration to co-operate on climate change but talks were suspended by China in protest at House of Representatives Speaker Nancy Pelosi's visit to Taiwan in August.

Yesterday's commitment leaves five days at COP27 for US envoy John Kerry to engage in formal negotiations with his Chinese counterpart, Xie Zhenhua.

The development was welcomed by António Guterres, UN secretary-general, at COP27, where negotiators have reported that discussions have become bogged down in political divides.

"There is no way in which we can address the climate challenge that we face without the co-operation of all G20 members and, in particular, without the co-operation of the two biggest economies, the US and China," Guterres said. "And I am very happy that the countries had a summit today."

Kerry has indicated that he and Xie have had several informal discussions, including meeting casually at the Sharm el-Sheikh conference. The US envoy had repeatedly urged China's leadership to allow formal negotiations to resume, stressing that discussions between the world's two biggest polluters was crucial to tackling the "existential issue" of climate change that "involves every nation, including our friends in China".

In a statement after the Bali meeting, China's foreign ministry said the countries had a responsibly "to keep a constructive relationship" and that they had "mutual interest" in the need to tackle climate change.

The US-China climate rapprochement came as the EU rejected criticism that the Ukraine war-related energy crisis meant the bloc was falling behind on its efforts to cut greenhouse gas emissions. "Nothing could be further from the truth," said Frans Timmermans, the commissioner for the EU's Green Deal.

If energy problems meant that "in the short run, we use more coal than we had anticipated, it is because we are going to go much faster with our energy transition", Timmermans added. "At the end of the day, this does not lead to a bigger carbon footprint of the EU."

Additional reporting by Alice Hancock in Brussels

See Opinion

China. Diplomacy

Xi faces test on return to the global limelight

First big foreign meeting since pandemic presents challenges on relationship with Moscow

TOM MITCHELL — SINGAPORE
SUN YU — NEW YORK
JAMES KYNGE — LONDON

Xi Jinping returns to the international stage this week as he makes his first appearance at a significant global gathering in almost three years, where the credibility of Beijing's claims to be neutral on the Ukraine war will be put to the test.

Aside from a brief trip to central Asia in September for a regional security summit, where Xi interacted only with friends and allies including his Russian counterpart Vladimir Putin, China's president has not ventured abroad since the onset of the Covid-19 pandemic.

In what is also his first diplomatic foray since securing a third term in power last month, Xi met US president Joe Biden for their first in-person dialogue as leaders yesterday, ahead of the opening of a G20 summit today in Bali, Indonesia.

Putin's last-minute decision to skip the G20 will make Xi's mission easier by reducing much of the drama that had been anticipated at "the first global summit of the second cold war".

But Russia's invasion of Ukraine — and his administration's tacit support of the Kremlin despite its claims of neutrality on the conflict — will nonetheless dominate the agenda, putting China's president in an uncomfortable position.

Xi and Putin formally hailed a "no limits" partnership between their countries when they met in Beijing in February, just 20 days before Russia's president ordered his military into Ukraine.

But according to four people briefed on the February meeting, Xi was caught off-guard by an invasion that Putin did not warn him of in advance — thus jeopardising the safety of thousands of Chinese nationals then living in Ukraine.

"Putin didn't tell Xi the truth," a Chinese official told the Financial Times.

"If he had told us, we wouldn't have been in such an awkward position," the official added. "We had more than 6,000 Chinese nationals living in Ukraine and some of them died during the evacuation, [although] we can't make that public."

In a speech last month, Putin said he did not tell his "close friend" Xi of the impending invasion in February. The Russian president added that the strength of the countries' relationship was "unprecedented".

Hot spot: Xi Jinping, arriving at Bali's Ngurah Rai airport yesterday, is expected to be asked about China's ties with Russia at the G20 summit on the Indonesian island
Ajeng Dinar Ulfiana/Pool/AP

Xi has invested too much political capital in China's relationship with Russia to express any disquiet over the war.

The Chinese Communist party's senior leadership, which is now stacked with Xi loyalists, values close strategic ties with Russia in the face of what it perceives as a US effort to thwart its rise with trade and technology sanctions.

It also blames Washington for frustrating Xi's ambition to unify China and Taiwan, the self-ruled island that Beijing claims is part of its sovereign territory.

Ni Shixiong, an international relations expert at Fudan University in Shanghai, said the Chinese government had done as much as it could in signalling its displeasure with Putin's threats concerning the possible use of nuclear weapons in Ukraine.

"China and Russia count on each other strategically," Ni said. "China has made a concession by publicly opposing the use of nuclear weapons. We have to some degree met the demands of [the US and its allies]. It is time to see whether the US recognises that and acts accordingly."

Beijing has called on Washington to rescind trade and technology sanctions and has halted bilateral contact on a range of issues in the wake of US House Speaker Nancy Pelosi's visit to Taiwan in August.

But the US president has further restricted Chinese companies' access to critical supplies for semiconductors, a sector vital to Xi's ambitions for self-sufficiency in next-generation technologies. "The onus is on the Chinese side to convince the US that its position has shifted significantly away from tilting towards Russia to a more neutral position," said Scott Kennedy, a China expert at the Center for Strategic and International Studies, who recently travelled to Beijing for informal discussions with Chinese policymakers. "Washington finds what China has done to be too little, too late."

Since the war in Ukraine began, Xi has called or met Putin at least three times — but not spoken with Volodymyr Zelenskyy, Ukraine's president.

Zhu Feng, a professor at Nanjing University, said Beijing would seek reciprocal concessions on trade and technology from Washington before it adjusted its position on Ukraine.

"There is not much China can do regarding Ukraine," he said. "China hasn't recognised Russia's annexation of Crimea, not to mention eastern Ukraine. That's the most China can do. Why should China help the west when the US sees China as its biggest threat?"

See The FT View

Monetary policy

Brainard backs slower rate rises by Fed

Central bank vice-chair warns the fight to tame inflation is far from over

COLBY SMITH — WASHINGTON

The Federal Reserve has "additional work to do" in its fight against inflation, the vice-chair of the US central bank said yesterday, even as she backed slowing the pace of interest rate increases.

Lael Brainard said the Fed should "soon" bring its string of supersized interest rate increases to an end, having raised rates by 0.75 percentage points at each of its four most recent meetings.

By moving at a pace that is more "deliberate", she said the Fed would be in a better position to both assess the incoming economic data and adjust the path of rate rises as needed.

However, Brainard emphasised that a slower pace of rate rises did not mean the Fed was backing off in its efforts to tackle price pressures, which are among the most intense in decades.

"We've done a lot but we have additional work to do both on raising rates and sustaining restraint to bring inflation down to 2 per cent over time," she said, adding that while October's better than expected inflation figure was "reassuring", it was only "preliminary".

Brainard, one of the most dovish members on the Federal Open Market Committee, has long emphasised the need for the Fed to take into account not only the "cumulative" tightening delivered so far but also the lagged effects on consumer demand, the labour market and other metrics when considering how aggressively to raise interest rates.

She reiterated yesterday the importance of staying "vigilant" to potential global spillovers from the Fed and other central banks' historically aggressive efforts to root out sky-high inflation.

"We are highly cognisant that in a world where many central banks in large jurisdictions are tightening at the same time, that is greater than the sum of its parts," she said.

> 'We have additional work to do both on raising rates and sustaining restraint to bring inflation down'

Brainard's views have become more widely accepted across the Fed, with chair Jay Powell confirming at the latest policy meeting this month that a reduction in the pace of rate rises could come as soon as December. However, Powell added that stubbornly high inflation and a resilient labour market were likely to mean the Fed might ultimately need to push rates to a higher level and keep them "restrictive" for longer, suggesting more economic pain than was initially expected.

In a recent interview with the Financial Times, Mary Daly, president of the San Francisco Fed, said a so-called "terminal rate" of "at least 5 per cent is probably likely".

Much will depend on the trajectory for inflation, Fed governor Christopher Waller said in Australia yesterday, though he added that the Fed still had "a ways to go" before pausing its rate rises.

Commenting on the risk of recession in the next 12 months, Brainard acknowledged it was "very difficult" to give a projection but reiterated that the "very unusual" labour market — featuring near-record job openings and a widespread worker shortage — might mean lower unemployment than past monetary tightening campaigns.

Asked about the wild gyrations in cryptocurrency markets after the collapse of FTX, the vice-chair said it was "really concerning to see that retail investors are really getting hurt by these losses" and called for "strong regulatory guardrails" similar to those that govern more traditional corners of finance.

"Despite a lot of hype . . . about how decentralised these markets are and how innovative and different," she said, "it turns out they're highly concentrated, highly interconnected and you're just seeing a domino effect [of] failures from one platform or one firm spilling over elsewhere."

See Opinion

Midterm elections. Democratic agenda

Biden in strong position for his second act

Control of Senate gives the president a stable platform despite loss of lower house

JAMES POLITI — WASHINGTON

Snap decision: Joe Biden poses for a selfie during a rally for Democratic candidates in New York. The US president has been emboldened by his party's performance in the midterm elections
Saul Loeb/AFP/Getty Images

From a Raffles hotel in Phnom Penh, the Cambodian capital, Joe Biden broke from the business of a regional summit to hail the Senate victory that maintained his party's hold on the US upper chamber of Congress.

"I feel good and I'm looking forward to the next couple of years," the US president said on Sunday. "We're going to try to get as much done as we can to continue to fulfil the agenda."

For Biden, the outcome of the midterm elections — the Democrats avoided sweeping defeats in the House of Representatives and retained their edge in the Senate — brought a mix of relief and confidence in his own political instincts.

Most importantly, it could cement his status domestically and internationally as an effective political shield against Donald Trump and a Republican party still captive to the former president's brand of hard-right radicalism.

"[Biden] was obviously contending with some pretty dire prognoses about what this election would mean personally for him and for the party," said Evan Osnos, a Biden biographer. "Instead, Biden gets to show up as the guy who has beaten Donald Trump twice, in effect."

Governing will still be complicated for Biden, given that Congress is set to be evenly divided. Maintaining control of the Senate is a huge boost because it will allow him to proceed with the confirmation of federal judicial appointments — a priority considering the conservative dominance of the Supreme Court — and give him more flexibility to secure confirmation of other executive appointments.

In the House of Representatives, the Republicans are expected to recapture control by a handful of seats, which will still be enough to block any attempts by Biden to secure additional legislative achievements on everything from voting rights to childcare subsidies and higher taxes on the wealthy.

Biden's Republican opponents will, however, be wounded after the midterms, with Kevin McCarthy's elevation to Speaker not even guaranteed. It is far from clear whether this mood will make compromise easier or harder on must-pass legislation to fund the government, muster additional Ukraine aid and raise the debt limit to avoid a default — but White House officials hope they will be less hostile.

"The American people didn't vote for Congress being used to conduct political vendettas over the next two years. They voted for working together to make progress on the issues they care about," Anita Dunn, a senior White House adviser, told CBS on Sunday.

"We would hope that the Republicans, who've just suffered a substantial defeat in terms of both their expectations and what historically midterm elections tend to do, would also listen to the American people, focus on the priorities of the American people."

Biden has emerged from the elections in a stronger position when it comes to deciding whether to launch a 2024 campaign later this year or early next. The results are bound to quieten voices within the Democratic party who had been calling for fresh leadership and faulting him for poor messaging, while shoring up support across the left.

"Donald Trump, with his preening and his selection of truly awful candidates, didn't do his party any favours," Elizabeth Warren, the Massachusetts Democratic senator, told NBC.

"But this victory belongs to Joe Biden. It belongs to Joe Biden and the Democrats who got out there and fought for working people."

The most encouraging political takeaway for Biden is that his bet on hammering away at the importance of preserving democracy from Trumpist election deniers and protecting abortion rights from rightwing ideologues paid off. Republicans and even some Democrats thought inflation and crime would be the only battlegrounds.

"He assessed the political moment more effectively than his critics did," said Osnos. "His whole sense of himself has always been closely wrapped around his feelings of being slightly underestimated."

Geographically, heading into 2024, Democrats appear to have shored up crucial parts of the "blue wall" — especially Pennsylvania and Michigan, where they won governor races in addition to John Fetterman's victory in the Pennsylvania Senate election.

In Georgia and Arizona, where Democrats recently gained ground, the party had more mixed results but still protected a Senate seat held by Mark Kelly, with a good chance of doing the same for Raphael Warnock in Georgia during a run-off contest set for early December.

"The credit Biden deserves isn't necessarily as the political field general but that he governed well," said Simon Rosenberg, founder of the New Democrat Network, a liberal think-tank in Washington. "People wanted to get back to normal life and Joe Biden got us back to normal life."

> 'People wanted to get back to normal life and Joe Biden got us back to normal life'

Exit polls from the midterms showed that most voters still disapproved of Biden's performance, and roughly two-thirds do not want him to seek re-election — suggesting the political winds have not swung decisively in the Democrats' favour. There is no guarantee that the better midterms than expected will translate into an advantage for 2024.

"Democrats shouldn't over-read the lesson of the election. Fundamentally it's an almost evenly divided country and some elections are just very tight," said Kenneth Baer, a former Barack Obama administration official and chief executive at Crosscut Strategies, a consultancy. "You have to go in thinking it's at best even and you have to work hard for every single vote."

Yet there is little doubt that Biden can move into the second act of his first term as president with some much-needed verve, at home and abroad.

"The big story for the world is that extremism was rejected here and democracy lived to fight another day," said Rosenberg.

Market support

Intervention by Beijing stokes property sector surge

CHENG LENG — HONG KONG
EDWARD WHITE — SEOUL

Shares and bonds in Chinese real estate companies rose sharply yesterday as a sweeping plan by Beijing to support the property market was interpreted as a critical moment in arresting the decline of the debt-ridden sector.

The Hang Seng Mainland Properties index closed 13 per cent higher in Hong Kong. Shares in Country Garden, one of China's biggest developers, gained more than 36 per cent, while several of the group's dollar bonds surged nearly 50 per cent.

Details of the 16-point plan from the People's Bank of China and the China Banking and Insurance Regulatory Commission were reported by the Financial Times on Sunday.

The key changes included extending a year-end deadline for lenders to cap their ratio of property sector loans, and the extension of outstanding trust borrowings.

The changes, which could affect more than a quarter of China's total banking loans, mean lenders now have beyond the end of this year to cap the portion of their outstanding property loans.

The extension was viewed as one of the strongest moves by Beijing to relieve pressure from the credit crunch roiling the industry, by giving lenders and cash-strapped developers breathing space as they fight to survive the country's historic property sector downturn.

> The Chinese market has been stunned by rising defaults and hurried asset sales by developers

The package marks the latest sign of Beijing backpedalling on its property sector reforms amid fears of a credit crash and social instability.

China's property sector meltdown has spread from developer defaults and slumping apartment sales to batter the coffers of local governments and risk contagion across the financial sector. There have also been signs of rising social instability after hundreds of thousands of would-be apartment owners boycotted mortgage payments across nearly 100 cities.

One bond trader for a US investment bank in Hong Kong said that while the joint statement signalled more policy easing in the aftermath of President Xi Jinping securing an unprecedented third five-year term in power last month, "its effectiveness remains to be seen".

"It said property developers' outstanding bank loans and trust borrowings due within the next six months can be extended for a year while the repayment on their bonds can also be extended. However, the condition of such an extension is based on banks' assessment of the solvency of the debt," the trader said.

The Chinese market has been stunned by defaults and hurried asset sales by developers over the past year. The pace of new loans and total social financing has also retreated faster than expected, amid sluggish demand.

A Hong Kong-based bond trader with a Chinese state bank pointed out that the rebound in developer bonds followed a bout of heavy selling, and added that it was limited to those with investment-grade ratings.

Still, the new plan dovetails with the expansion of a programme to help developers sell more onshore renminbi bonds and ease their liquidity woes.

See Lex

Legal Notices

CWR Form No. 22
Advertisement (Application for Supervision Order) (O.15, r.5)
THE COMPANIES LAW
TT GLOBAL EQUITIES (In voluntary liquidation)
Grand Court Cause No FSD 242 of 2022

TAKE NOTICE that: -

1. The above-named Company was put into voluntary liquidation on 27 September 2022.
2. A petition has been presented to the Grand Court of the Cayman Islands by the Voluntary Liquidator for an order that the liquidation continue under the supervision of the Court.
3. The hearing of the petition will take place at the Law Courts, George Town, Grand Cayman on 19 January 2023 at 10:00 am.
4. Any member or creditor of the Company is entitled to appear at the hearing of the petition for the purpose of being heard upon the question of who should be appointed as official liquidator of the Company. Any member or creditor wishing to be heard must serve a notice of appearance upon the Voluntary Liquidator not less than three (3) days prior to the hearing date.

Dated this 2 day of November 2022.
James Parkinson, Joint Voluntary Liquidator

In the matter of PI Telecom Limited
and
In the matter of the Cyprus Companies Law Cap 113

Notice is hereby given that the creditors of the above-named company which is being voluntarily wound up are required on or before the 15th day of December 2022 to send in their full names, their addresses and descriptions, full particulars of their debts or claims and the names and addresses of their solicitors (if any) to the undersigned Constantinos Constantinou, of PricewaterhouseCoopers Limited, Julia House, 3 Th. Dervis Street, CY-1066 Nicosia, P.O.Box 21612, CY-1591 Nicosia, Cyprus, the joint liquidator of the said company, and if so required by notice in writing from the said joint liquidator, to come in and prove their said debts or claims at such time and place as shall be specified in such notice, or in default thereof they will be excluded from the benefit of any distribution made before such debts are proved.

Dated this 15th day of November 2022

Constantinos Constantinou
PricewaterhouseCoopers Limited
Joint Liquidator of PI Telecom Limited

Capitol Hill

Republican leadership battles expected to expose divisions within party

LAUREN FEDOR
WASHINGTON

Republicans on Capitol Hill are set to press ahead with leadership elections this week, votes that will determine the political futures of Kevin McCarthy and Mitch McConnell and lay bare the party's divisions after last week's disappointing midterm elections.

While votes are still being counted in several states, Republicans appear on course to eke out a narrow majority in the House of Representatives, reclaiming the lower chamber of Congress and ushering in a new era of divided government in Washington.

But any Republican majority would fall short of the expected "red wave" that would have strengthened the party's legislative hand and made it a thorn in the side of Democrat Joe Biden's White House.

The weaker than expected Republican results have raised fresh questions about the influence of former president Donald Trump, who endorsed hundreds of candidates up and down the ballot and became a high-profile presence on the campaign trail in the weeks before election day.

The results have also dented the political ambitions of McCarthy, the most senior House Republican who until recently had been seen as a near shoo-in to become Speaker of the House, taking the gavel from Democrat Nancy Pelosi.

But McCarthy is now facing pressure from rightwing members of his party, who want assurances that the California lawmaker will bend to their legislative priorities. Elections among lawmakers for House Republican leadership positions are scheduled for today but members of the so-called Freedom Caucus want them delayed until it is clear that Republicans have reclaimed the House.

At the same time, prominent supporters of Trump are insisting that McCarthy be more full-throated in his support of the former president, who is widely expected to formally announce that he will run again for president in 2024.

Kevin McCarthy until recently had been seen as a near shoo-in to become Speaker of the House

Meanwhile Republican senators are scheduled to hold their own leadership elections tomorrow, after they failed to win control of the upper chamber of Congress in last week's midterms.

Democrats officially secured another majority in the Senate at the weekend, following victories in Arizona and Nevada for incumbent Democrats Mark Kelly and Catherine Cortez Masto, respectively.

Whether the Democrats control an evenly divided chamber or have a 51-49 majority will be determined next month in a run-off election in Georgia between incumbent Democrat Raphael Warnock and Republican challenger Herschel Walker.

McConnell, the longtime Republican leader in the Senate, has so far been unchallenged to lead his party in the upper chamber. But several Republican senators have suggested delaying the leadership vote in the upper chamber until after the Georgia run-off, raising speculation McConnell could face a challenge from a lawmaker such as Rick Scott, the Florida senator who led the Republicans' midterm campaign efforts and has locked horns with McConnell in recent months.

Trump, who is looking to reclaim the political spotlight even after several of his high-profile handpicked candidates lost in last week's midterms, has called for Scott to replace McConnell, who previously raised questions about the "quality" of Trump's endorsements.

Posting on his Truth Social platform on Sunday, Trump said the midterm results were "Mitch McConnell's fault", adding: "He blew the midterms, and everyone despises him."

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Eye on SE Asia Region emerges as both winner and prize in geopolitical contest for trade and investment ➔ MARKETS INSIGHT

Companies & Markets

EY postpones partner vote on radical split until next year

- Firm extends tenure of global boss
- Legal details prove 'really complex'

MICHAEL O'DWYER — LONDON
STEPHEN FOLEY — NEW YORK

Voting by EY's UK and US partners on a radical plan to break up the Big Four accounting firm is set to be delayed to next year as its leaders try to hammer out legal documents governing how the split will work.

The separation of the audit and consulting businesses, proposed by EY's global bosses in September, requires the backing of its 13,000 partners in country-by-country votes.

Ballots were due to start this month and conclude early next year with the US and UK among the first to vote, but that schedule has slipped, people at the firm told the Financial Times. Leaders at EY were now saying openly that the UK partner vote would not take place until the first quarter of 2023, one of the people said.

> Many staff in the 365,000-person firm still do not know which organisation they will be assigned to

The US and UK are the two largest EY member firms, accounting for half of its $45.4bn in global revenues.

Partners were told this week that global boss Carmine Di Sibio, whose four-year term was due to expire in June, had been handed a two-year extension allowing him to continue running the firm until the split was complete.

The main stumbling block in setting dates for ballots is finalising the so-called global framework agreement, the legal document covering details of how assets, liabilities and people will be split between the businesses.

EY will then need to prepare information documents explaining to partners which business they will be assigned to and the terms of the deal, including the likely size of payouts — cash for auditors and shares in a listed company for the consultants.

Many staff in the 365,000-person firm still do not know which organisation they will be assigned to because the audit business will retain some experts in areas such as tax valuation to assist with checking financial statements and to rebuild the audit firm's advisory practice.

While the headline points have been agreed, negotiations over several detailed issues have not been completed, a person familiar with the matter said.

EY's leaders still expect the final member firm votes to be completed in February or early March, the person added. They have pencilled in a US initial public offering of the consulting business by the end of 2023.

EY declined to comment.

Concerns about the economic outlook for next year have grown since it first emerged in May that EY was considering a split.

Interest rate rises since then have increased borrowing costs for companies and roiled credit markets.

EY expects the advisory business to raise about $11.5bn by selling a 15 per cent stake in an initial public offering and to borrow another $18.7bn.

The firm was making progress towards partner votes, but the process was "really complex", the person familiar with the matter said, adding that bosses had to "balance speed and execution" while still running the business.

EY had also planned to appoint leaders for the two businesses before votes took place, but the positions have still not been filled. It is searching for a chief financial officer with public company experience to join the spun-out consulting group.

Turn of events Rebound for exhibitions and trade shows leads Informa to boost outlook

The Miami boat show organiser is benefiting from a business travel revival beyond China — Chandan Khanna/AFP/Getty

ARJUN NEIL ALIM — LONDON

Informa has raised its full-year earnings and revenue forecasts following a strong return to in-person events and trade shows, even though strict pandemic measures continue to weigh on the Chinese market.

The move by the exhibitions group shows that, beyond mainland China, business travel is rapidly recovering to pre-pandemic levels, especially in the US.

Informa reported underlying revenue growth excluding currency moves of 41 per cent in the 10 months to the end of October. The FTSE 100 group raised its guidance for full-year revenue by £100mn to between £2.3bn and £2.45bn, and adjusted operating profit by £15mn to between £490mn and £505mn.

The shares climbed 5.7 per cent, although they are still roughly a third lower than a peak in January 2020.

"Numerically we're not back to 2019 levels, but outside of China the pace of return and our value proposition is strong," said chief executive Lord Stephen Carter.

The organiser of the Miami boat show and World of Concrete recorded a £1.14bn loss in 2020 when the pandemic grounded events, but bounced back with a pre-tax profit of £137mn last year. It has since completed the sale of its intelligence division, selling Pharma Intelligence to private equity group Warburg Pincus for £1.9bn and Lloyd's List to private equity firm Montagu for £385mn.

The company used the proceeds to launch a £750mn share buyback programme as well as to invest in its events technology and to buy business journalism outfit Industry Dive. Carter said that some of the proceeds remained available for "further acquisitions".

Covid restrictions are preventing a return to business as usual at its trade shows in China. The Chinese mainland accounted for more than 13 per cent of the group's revenues last year. The guidance assumes no further income from events in China for 2022.

Analysts at Citi said the update "de-risks" any further contagion from China curbs, and noted the "fairly strong" performance of the group's academic publishing division alongside the recovery of corporate events. The unit was boosted by subscription renewal rates, delivering underlying revenue growth of 3 per cent.

Carter said that the rise of working from home might even benefit the business in the long run, as "meeting moments that matter have become more important".

He said: "If you're a professional in field X and you're going into the office three times a week . . . the single industry gathering is disproportionately important."

Binance chief calls for more regulation after FTX's fall

STEPHANIE FINDLAY AND WILLIAM LANGLEY — HONG KONG

The chief of the world's largest crypto exchange, Binance, has said no one can be protected from a "bad player" and called for more regulation of the sector.

Speaking at a meeting of business leaders in Bali yesterday after the collapse of Sam Bankman-Fried's FTX last week, Changpeng Zhao did not name his former arch-rival but said the crypto industry "collectively has a role to protect consumers".

"To be very frank, if a guy is very good at lying and is very good at . . . just pretending to be what he's not, [if] somebody wants to violate the law, the law is not going to prevent that," said Zhao, who is known as "CZ" in the industry.

FTX suffered an $8bn liquidity crunch after being inundated with withdrawal requests from customers. The $24bn personal fortune of Bankman-Fried, the 30-year-old boss of the exchange, has been wiped out and the exchange filed for bankruptcy protection on Friday, prompting contagion in the crypto sector.

"We do need to increase the clarity of regulations and the sophistication of regulations in the crypto space," Zhao said, wearing a zebra-patterned shirt and neon yellow trainers.

He called on the industry to improve transparency and said Binance would be "leading the way" to show proof of reserves. Other smaller rivals, including Crypto.com, OKX and Deribit, have also promised to publish proof that they hold sufficient reserves to match their liabilities to customers.

Zhao had earlier wrote on Twitter that people holding crypto assets should use Trust Wallet, Binance's official crypto wallet, to send, receive and store cryptocurrencies.

"Self custody [keeping crypto in your personal digital wallet] is a fundamental human right. You are free to do it at any time. Just make sure you do it right," he wrote.

Investors have been pulling out of crypto since FTX's collapse. Bitcoin, the most popular cryptocurrency, has fallen more than 20 per cent in the past week to about $16,000.

Bankman-Fried wrote on Twitter on Friday that FTX had filed for Chapter 11 bankruptcy. "I'm really sorry, again, that we ended up here. Hopefully things can find a way to recover," he said.

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Dealmaking is becoming tougher as the era of free money ends

INSIDE BUSINESS
FINANCE
James Fontanella-Khan

Mergers and acquisitions advisory is an inherently cyclical business. When the economy is strong, dealmaking and the revenues attached to it go up. In periods of contraction, companies do fewer deals.

But the current economic environment is puzzling for most US chief executives. Growth is robust, the trade deficit is shrinking, unemployment is low and wages keep rising. Yet recession risks loom as central banks seek to tame inflation with higher interest rates. This adds to other negatives: Russia's invasion of Ukraine, tumbling stock prices and tensions between the US and China.

All this has made dealmaking tougher than usual. The data are unequivocal. So far, overall global activity is down 33 per cent compared with the same period a year ago, according to Refinitiv data. That slump is even bigger in the US where the frenzy around the blank-cheque investment vehicles known as Spacs has evaporated.

So what explains the surge in large US deals? In recent weeks Kroger agreed to buy rival grocer Albertsons for $24.6bn, Johnson & Johnson reached a deal to acquire cardio tech group Abiomed for $16.6bn, Blackstone bought a majority stake in Emerson Electric's climate business in a deal that values the company at $14bn, and a Walgreens affiliate agreed to combine with urgent care provider Summit Health in a transaction worth about $9bn — to name a few.

At a glance, it appears dealmaking in North America is making a comeback despite the uncertainties. The reality is more complicated. The environment is giving companies with a solid balance sheet the upper hand to strike boldly, while others are forced to stand by.

"Companies that have the financial wherewithal to act are going to take advantage of the current market," says Anu Aiyengar, global co-head of M&A at JPMorgan Chase. "If you are not dependent on the debt markets, which remain tight, you have two choices: you can either buy back shares or do a deal."

Blair Effron, the co-founder of independent advisory firm Centerview Partners, agreed that companies with "fortified balance sheets" want to take advantage of the moment to be strategically active.

> 'Companies that have the financial wherewithal to act are going to take advantage of the current market'

"What people have learnt from past downturns is that the best time to figure out how to create competitive gaps is to take advantage of dislocations and lower valuations," says Effron. "For the best companies, there's a lot of thinking about M&A."

Blackstone's deal with Emerson Electric is a good example of how a capital-rich company — or private equity conglomerate in this case — can take advantage of its financial strength to come up with a financing arrangement that few others could propose. Emerson Electric will receive $9.5bn in cash from the sale — $4.4bn of it from Blackstone and the remainder from debt sources that were arranged by the private equity firm. The unusual agreement highlights Blackstone's financial clout at a time of broad market dislocation.

So while classic leveraged buyouts are more expensive as financing costs rise, larger alternative asset managers such as Blackstone, KKR and Apollo are still well positioned to strike deals.

"[The] overall mood and sentiment across KKR is quite positive," KKR's chief financial officer Robert Lewin said a few weeks ago in the company's third-quarter results presentation. He added that in private equity, often its "best vintages" result from investments made during periods of market distress. "We think 2023 could present such an opportunity," he said.

The deal between VillageMD, an affiliate of Walgreens, and Summit Health is another good example of an unorthodox transaction. Walgreens has agreed to invest $3.5bn in equity and cash, while healthcare insurer Cigna has also backed the transaction, taking a minority stake. In effect, both companies injected a limited amount of cash to create a market-leading urgent care provider. But deals such as this are unlikely to make up for the overall loss in activity, particularly in tech, which has been among the biggest engines behind the deal boom in the past decade.

Joe Biden's antitrust watchdogs have made clear they would oppose big tech deals. Microsoft's proposed $75bn acquisition of Activision, for instance, is still being held up by global regulators despite being agreed in January. Dealmaking is not dead. But given the tap of free cash that flowed in era of low interest rates has been switched off, it will take rainmakers a lot more creativity than usual to earn the fat fees linked to their advisory work.

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COMPANIES & MARKETS

Financials

Ant lowers target of fundraising drive

Ma's fintech pushes on with hunt for capital after exit of state-owned group

RYAN MCMORROW — BEIJING
SUN YU — NEW YORK

Jack Ma's Ant Group is moving forward with plans to raise capital for its lending arm after a state-owned asset manager pulled out of an earlier fundraising deal for the unit.

The fundraising is part of a government-led restructuring effort for Ma's fintech company, which has been working to revamp its business since Chinese regulators called off its blockbuster $37bn initial public offering more than two years ago.

The deal will bring in Rmb10.5bn ($1.5bn) for Ant's consumer finance unit, about half of the Rmb22bn the group had hoped to raise last year, according to a filing from one of the investors, Yuwell Group.

A vehicle controlled by the government of Hangzhou, where Ant is based, is to step into the void left by China Cinda Asset Management's surprise exit in January citing "prudent commercial consideration". Hangzhou Jintou Digital Technology will contribute Rmb1.9bn, gaining a 10 per cent stake.

Ant has become a high-profile target in Beijing's regulatory crackdown on some of the country's fastest-growing technology groups. After Ma criticised Chinese regulators and state banks two years ago, the billionaire has largely disappeared from public view while both companies he founded, Ant and ecommerce group Alibaba, have faced a thicket of new regulatory obstacles.

China's financial regulators have focused on shrinking Ant's business as part of a grinding "rectification" campaign for the group, which was China's largest issuer of consumer credit.

Ant's credit operations, which funnel loans through its Alipay app, was hived off into a separate unit last year. Ma's group retained a 50 per cent stake in the newly established company, Chongqing Ant Consumer Finance, and outside investors, including state-owned groups, were brought in to buy the remainder of the shares.

The company's enlarged capital base will allow Ant to support a larger portion of its online lending activities within government rules created to rein in financial risk. The lending arm had been Ant's most profitable business line, and accounted for 39 per cent of its revenue in the first half of 2020. Chongqing Ant's business reported Rmb1.1bn in net income against Rmb3.2bn in revenue in the first nine months of this year, according to the Yuwell filing.

While the capital raising marks progress for Ant's lending unit, a person close to the company said the group's regulatory overhaul is "far from over". Ant and Chinese authorities remain at odds over its vast trove of user data.

Qiantang Credit Scoring Co, which is meant to take over Ant's user data for commercial use, has yet to receive a business licence a year after it applied for one with the People's Bank of China. People close to Qiantang said Ant, which has a 35 per cent stake in Qiantang, is competing with the central bank for control over the credit scoring unit.

"The central bank thinks it's not safe to put so much data under the control of a private group," said the person.

Ant did not respond to requests for comment.

Technology. Growth snag

US curbs hit China's chip equipment makers

Orders rise in short term but domestic supplies struggle to support advanced products

QIANER LIU — HONG KONG
KATHRIN HILLE — TAIPEI

As US export controls bite, Chinese manufacturers of equipment needed to make semiconductors are expected to benefit from a rush of domestic orders, though executives and analysts warn the boost could be shortlived.

Since Washington introduced sweeping restrictions on October 7 to limit Chinese companies' ability to obtain or manufacture advanced computer chips, Yangtze Memory Technology, China's largest memory chipmaker, has issued at least 20 tenders for a broad range of chipmaking equipment.

"The current strategy is that if there is workable domestic semiconductor production equipment, even though [the suppliers] need help, we will buy from Chinese companies. If not, we shop from non-US vendors, mostly Japanese," said a senior YMTC engineer.

"I anticipate most of the orders would end up in the hands of domestic suppliers who would prioritise clients like us, but there are still quite a few pieces beyond their capability."

The company will instead replace US toolmakers such as KLA and Applied Materials with Japanese ones, including Hitachi and Tokyo Electron, in a sign of how homegrown suppliers still lag behind foreign rivals with their technology.

To make matters worse, Chinese chipmakers' loss of access to certain irreplaceable US-made tools has halted the majority of construction projects for production facilities that drive domestic equipment makers' business.

Chinese semiconductor equipment revenues trebled between 2018 and 2021, driven by domestic chipmakers' aggressive expansion, according to research by Sanford C. Bernstein. But the investment group estimates that a mere 15 per cent of equipment demand from Chinese chipmakers was covered by homegrown suppliers this year, far short of an ambitious government target of 30 per cent.

The export controls would hold this crucial sector back even more, analysts said.

"They may want to step up self-sufficiency in terms of chip manufacturing equipment in reaction to the export controls, but in fact, localisation will be slower as a result of the controls," said Mark Li, semiconductor analyst at Sanford C. Bernstein in Hong Kong. "The biggest bottleneck is that their customers, because of lack of access to foreign equipment, will be unable to expand more."

A chips workshop at Aoyang Shunchang Optoelectronic in Huai'an, Jiangsu. Washington's export restrictions are holding back the sector
CFOTO/Future Publishing/Getty; Imaginechina/Alamy

Three people with direct knowledge of the situation said that while YMTC had not cancelled or postponed already placed equipment orders, the company's plans to expand were suspended. ChangXin Memory Technologies, YMTC's smaller rival, had also put some expansion plans on hold, according to one person familiar with the matter.

Analysts at Jefferies projected that the disruption to the capital spending plans of China chipmakers, especially in the memory segment, would lead to a sharp drop in demand for semiconductor production gear over the next few years.

YMTC and CXMT should still have enough equipment to meet their expansion plans next year, but "if they cannot access advanced equipment from the US and cannot find good enough alternatives from Japanese or European suppliers, they will probably have to stop expansion entirely", Jefferies analyst Nick Cheng wrote in a research note.

As a result, China's total investment in chipmaking tools would drop from the analyst's previously forecast $26bn to $18bn in 2024, and from $24bn to $16bn in 2025.

That would rob Advanced Micro-Fabrication Equipment, one of China's largest chip equipment makers, of a quarter of Jefferies's forecast revenue for 2025. ACM Research, an AMEC rival, would lose nearly 20 per cent of projected revenue for that year, the note projected.

The chip companies did not respond to a request for official comment.

Despite stockpiling efforts, several equipment companies could also be hit by inability to procure foreign components for their products.

"Only the assembly part of our products is completely based in China, while the rest requires foreign technology and components . . . Just limitations on

> 'They may want to step up self-sufficiency but in fact localisation will be slower as a result of the controls'

components can easily choke us," said an Amec engineer.

In addition, the equipment makers are facing a talent drain as engineers seek higher-paying jobs in chip design houses and semiconductor manufacturers.

"Chinese equipment companies should also worry about the stability of their existing R&D team, as we have received quite a lot of inquiries from equipment engineers regarding switching to other sectors that have not been affected as much by the new sanctions," said a Shanghai headhunter.

In the face of the mounting challenges, the response from some equipment companies is to explore greater collaboration with rivals.

"The new sanctions are forcing companies like us to seek further co-operation with each other," said an Amec manager. "Executives from several companies, including ACMR, Amec and others, are breaking walls and have had meetings on this."

Food & beverage

Tyson Foods launches board review after new CFO arrested

STEPHEN FOLEY — NEW YORK
STEFF CHÁVEZ — CHICAGO

The board of Tyson Foods has launched a review of the conduct of the company's new chief financial officer, who was arrested this month on charges of public intoxication and trespassing after a woman found him asleep in her bed.

John Randal Tyson's arrest in Arkansas came just weeks after his promotion to the CFO job sparked concern from analysts and investors over the depth of his experience. He is the 32-year-old son of Tyson chair John H Tyson and the great-grandson of the founder of the American meat-processing company.

Tyson Foods is the largest meatpacking group in the US, with plants able to slaughter tens of millions of chickens and hundreds of thousands of pigs and cattle a week. While publicly listed, the company is controlled by the Tyson family through supervoting shares. It had earlier called the arrest "a personal matter".

Donnie King, chief executive, disclosed the board review midway through an investor call to discuss Tyson's quarterly results yesterday.

"The company takes this matter seriously," he said. "Our independent board of directors are overseeing a thorough review of this matter and I am confident in this independent process."

> 'Our independent board of directors are overseeing a thorough review of this matter'

Asked about the scope of the review and whether the committee had engaged outside lawyers, King declined to give any further details.

Tyson was arrested in the early hours of November 6. Police reported they received a call from a woman who had "returned to her home and located an unknown and unwelcome male sleeping inside her bedroom".

Officers found his identification in his clothes on the floor, struggled to wake him and found him to be intoxicated.

"I'm embarrassed and I want to let you know I take full responsibility for my actions," Tyson said on yesterday's earnings call. "I apologise to our investors as I have to our employees. This incident was inconsistent with our company values as well as my personal values. I'm committed to making sure it never happens again."

Tyson joined the business as chief sustainability officer in 2019 shortly after studying for an MBA, having started his career in finance with companies including JPMorgan Chase. He was promoted in September and the existing CFO, Stewart Glendinning moved to run the prepared foods business.

On the earnings call, Robert Moskow, analyst at Credit Suisse, said the company usually put executives with brand management experience in charge of prepared foods and "people into the CFO role who have 20-plus years experience in the finance track, and this reshuffle did the opposite".

King defended the chairman's son's suitability for the role.

Tyson Food's revenues for the year were up 13 per cent to $53.3bn, but net income rose just 6 per cent to $3.3bn.

Additional reporting by Peter Wells in New York

Technology

Amazon to axe about 10,000 corporate jobs

DAVE LEE — NEW YORK

Amazon is planning to cut about 10,000 jobs from its corporate workforce, a person familiar with company's plans said, as part of its effort to cut loose lossmaking or underperforming parts of its business.

The person said the precise number had yet to be finalised. A cut of about 10,000 jobs would represent about 3 per cent of Amazon's corporate workforce.

It comes as part of a review into the ecommerce and cloud giant's performance, led by chief executive Andy Jassy.

Last week, it was confirmed that Amazon's unit behind voice assistant Alexa was among the groups being analysed for cost savings.

The person said job cuts were being assessed on a "team by team" basis, with the first firings potentially happening as soon as this week.

An Amazon spokesman declined to comment. The size and timing of potential job losses was first reported by the New York Times.

The culling would be the largest in Amazon's history, and in the same ballpark as recent sweeping reductions at other technology companies as they grapple with tumbling share prices. Last week, Facebook's parent Meta said it would shed 11,000 roles, representing about 13 per cent of the entire company.

Amazon's workforce most recently stood at about 1.5mn, though the vast majority are frontline employees in the company's warehouses and other logistics facilities.

While that employee base fluctuates with seasonal demand — and doubled during the pandemic — corporate layoffs at Amazon have been rare.

The planned cuts come as Amazon faces soaring costs and slowing growth in its online stores business. The group's market capitalisation has fallen about 42 per cent since the beginning of this year to about $1tn.

Investors have been concerned about a pullback in consumer spending amid broader macroeconomic pressure, while overeager expansion during the pandemic has left Amazon with wasted logistics capacity, forcing it to cancel or delay planned new facilities. Amazon's shares were down about 1.4 per cent to $99.41 in yesterday afternoon's trading.

Amazon has told investors it would decrease its capital expenditure on ecommerce by about $10bn this year compared with 2021, following two years of heavy investment in building its two-day and one-day delivery network. Earlier this month, Amazon's head of HR, Beth Galetti, said a hiring "pause" would be put in place for at least the "next few months".

News of the job losses came on the same day Amazon founder and former chief executive Jeff Bezos said he planned to give away most of his $124bn fortune.

See Opinion Sarah O'Connor

Pharmaceuticals

Alzheimer's project ends in failure for Roche

DONATO PAOLO MANCINI — LONDON

Two late-stage Alzheimer's treatment studies conducted by pharma group Roche have failed, adding to a long list of disappointments in the field.

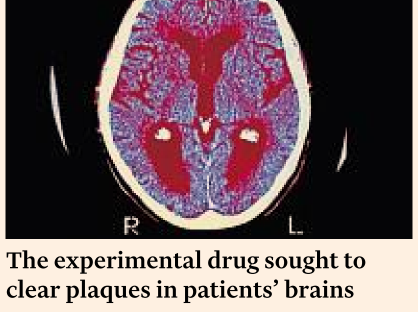
The Swiss drugmaker said yesterday that two phase 3 trials of its antibody drug gantenerumab did not slow the decline in people with early-stage Alzheimer's disease, with both failing to meet their "primary endpoint", or most important research objective.

The experimental drug targeted beta amyloid, the protein that clumps into plaques in the brains of Alzheimer's disease patients. The two studies showed plaque clearance was lower than expected, Roche said.

Switzerland-listed shares in Roche fell on the news, losing 3.9 per cent by the close.

The beta amyloid hypothesis — that by targeting the protein, Alzheimer's can be slowed or stopped — has been a source of controversy and a large number of studies testing it have failed. Yet hopes had been raised by positive results published in September for a drug co-developed by pharma groups Biogen and Eisai, which slowed the rate at which the disease progresses.

Alzheimer's treatment research has proved stubbornly fruitless, with no new molecules licensed in nearly two decades. A Biogen drug called aducanumab was the first drug to be approved by US regulators last year, though its benefits appear limited and US insurers refuse to pay for it.



The experimental drug sought to clear plaques in patients' brains

The Roche setback adds to the list of challenges facing chief executive-designate Thomas Schinecker when he takes over next year. Schinecker is currently the company's head of diagnostics. The company's current chief executive, Severin Schwan, has moved to broaden Roche's focus from its traditional specialism of cancer medicine.

Roche said it remained committed to research into Alzheimer's disease. "The company is continuing to develop and deliver tests to enable early and accurate Alzheimer's diagnosis and has a pipeline of investigational medicines for different targets, types and stages of the disease," it said.

More than 55mn people live with dementia worldwide, according to the World Health Organization, with Alzheimer's thought to account for 60 to 70 per cent of cases.

Carmakers shift gear on attitude to miners

Rush for lithium, nickel and cobalt prompts effort to bypass traditional supply chains and seal direct deals with sector

HARRY DEMPSEY AND PETER CAMPBELL
LONDON

In the 1920s, Henry Ford set up rubber plantations in the Amazon, a steel mill in Michigan and coal mines across the US to supply his growing empire. A century on and car groups are again looking to take greater control of their raw material supply chains in the race to electrify the global car fleet.

Demand for electric cars is taking off but the bottleneck of raw materials for batteries such as lithium, nickel and cobalt is threatening to slam the brakes on their rollout, a problem that could lead to factory shutdowns and land carmakers with billion-dollar fines for missing emissions targets.

"We're absolutely convinced that this is a race, a zero-sum game, and resources are a finite limit," Tanya Skilton, director of purchasing for EV critical materials at General Motors, told the FT Mining Summit last month.

The International Energy Agency forecasts that soaring EV battery demand will require 50 new lithium projects, 60 nickel mines and 17 cobalt developments by 2030, a challenge for an industry that typically takes 15 years or more to develop a project.

The threat to carmakers has led to a gear-shift in attitude to the mining sector and a realisation that the motor industry can no longer approach sourcing raw materials as off-the-shelf procurement.

Mercedes-Benz is among companies to have signed offtake agreements — promises to buy future output that help suppliers raise financing — with miners, and has begun work on its own processing facilities.

"If you asked me five years ago, I would have said this was the job of the commodity markets," said chief executive Ola Källenius. It "makes sense" to do direct deals because of the coming squeeze.

"If you do the maths of what we would need at the end of the decade, and you see where we are now, it's a factor of X in terms of scaling. The issue is not that there's not enough lithium on this planet — there is. But it needs to be mined and it needs to be refined and go through all the steps."

Skilton projects that the industry will be divided into "winners and losers" based on which companies will have the minerals to fulfil their "electrified dreams".

The change marks a reversal of a decades-old practice under which carmakers manage their direct suppliers, which in turn work with tier-2 suppliers, and so on down the chain, with each business only dealing with the company that feeds directly into them. In the EV supply chain, battery producers, cathode makers and mineral processors sit between the car companies and miners.

Now carmakers are going right down the chain to the mines themselves, both to secure the supplies cheaply and to ensure ethical and emissions standards are met. Stellantis, owner of the Peugeot and Fiat brands, and GM are among those to have invested in early-stage mining companies.

"The carmakers have woken up to this," said Doug Johnson-Poensgen, chief executive of Circulor, a technology group that uses a distributed database to track parts and material through the supply chain. "That's why quite a number of the auto groups have direct supply deals."

Chinese EV companies have been pursuing this strategy for some time. BYD, the largest EV producer, has been trying to secure access to lithium mines in Africa and Chile. The largest battery maker CATL agreed last month to buy a near 25 per cent stake in cobalt producer CMOC for about $3.7bn.

Tesla has been the most aggressive western carmaker in signalling it will become directly involved in the mining and processing of critical raw materials when the supply chain is unable to meet its needs. The company held talks with Glencore about taking a stake in the Swiss commodities group, although its chief executive Elon Musk has denied his company contemplated such a move. Two people familiar with Musk's thinking said he would prefer Tesla to develop in-house capabilities, disliked giving away capital without having operational control, and was concerned about the heightened scrutiny a Tesla-backed mining project would face.

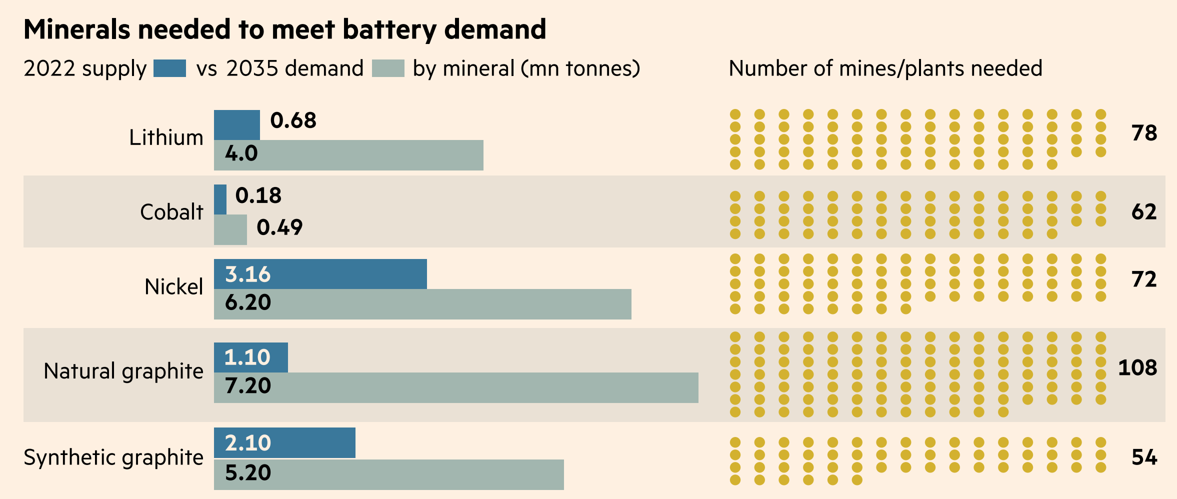
> 'We're convinced this is a race, a zero-sum game, and resources are a finite limit'
> Tanya Skilton, GM

Musk told the FT's Future of the Car Summit this year that the company would only invest in mines if "we think we can change that mining company's trajectory significantly".

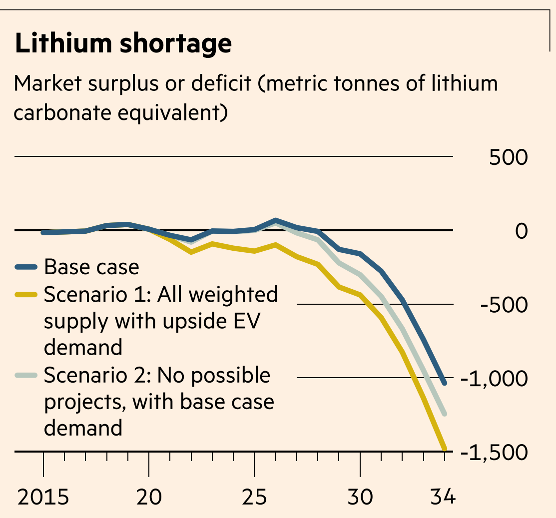
Tesla is pushing ahead with plans to build a lithium refinery on the Gulf coast in Texas with equipment set to arrive next year, according to a person familiar with the project.

Some of the feedstock for the refinery was supposed to come from Piedmont Lithium's project in North Carolina, but the Australian group delayed delivery indefinitely last year after falling behind with permitting applications. That reflects a lament among mining executives who say permitting has become tougher, pushing mine development timeframes from five to seven years a few decades ago to well over 10 years.

Workers assemble an ID.4 at the VW plant in Emden, Lower Saxony. The industry can no longer approach sourcing materials as off-the-shelf procurement — David Hecker/AFP/Getty Images



Source: Benchmark Mineral Intelligence



Lithium is problematic. Prices have risen ninefold in less than two years to $74,500 per tonne of battery-grade material. The industry is maturing and lacks experience at scaling up production quickly. To meet the forecast increase in demand for EVs, the lithium industry is relying on early-stage mining companies, often with unproved technologies, to deliver every single tonne of supply promised.

GM's Skilton said new entrants could unlock resources sooner or in cleaner ways. But she recognised the risk "that the tonnes will show up on a different timescale to what we want them to".

Eric Norris, president of lithium at the highest-valued producer and Tesla supplier Albemarle, said securing sufficient quantities of hard rock containing the metal to feed into the lithium refinery would be the key challenge for Musk's company, which aims to sell 20mn electric vehicles a year by 2030.

"The bottom line is they need resources to execute their strategy," he said. "They may have a few deals here and there, but they will amount to a small fraction of what their growth aspirations are. I think they need the industry and companies with access to these large world-class resources to drive their agenda."

Large mining groups diverge from early-stage developers on the need to go beyond the traditional model of offtake agreements to get supply delivered when needed.

"We need to raise a lot of money," said Keith Philips, chief executive of Piedmont Lithium. It needs $600mn for a lithium refinery in Tennessee and approximately $1bn for a proposed mine and refinery in North Carolina. "The best way for us to do that and for the auto and battery companies to secure their supply is to co-invest with us."

By contrast, Norris says that Albemarle generates "significant cash flow" to fund future growth and has no need for funds from carmakers. It would only explore investment from a car company if there were strategic benefits such as helping it innovate more rapidly, develop new products, or expand its recycling business.

An executive at another large producer of battery metals said "we don't need a carmaker to hold our hand" for any assets it wanted to develop.

The interests of mining and automotive companies are at loggerheads. Miners want the higher prices that come with limited supply; car companies want low prices with ample availability. The multi-decade investment horizon for the mining industry is a far cry from the shorter cycles on which carmakers operate.

Henk de Hoop, chief executive of battery metal consultancy SFA, said the rationale for a car company to take a stake in a large miner was unclear. "If you invest in a Rio Tinto or Anglo American, then it's a regulated shareholder relationship, so it doesn't give you a right to 20 per cent of the nickel or other metals," he said.

Instead of the full-blooded conglomerate model of Ford a century ago, according to de Hoop, the carmakers' strategies bring them closer to behaving somewhat like a bank or Japanese trading house. "They are acting far more like alternative capital providers to accelerate projects deemed too risky by traditional lenders, while gaining supply security as compensation."

Additional reporting by Edward White in Seoul and Gloria Li in Hong Kong

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Food & beverage

Oatly to cut its workforce after losses widen

EMIKO TERAZONO

Oatly slashed its annual revenue forecasts and revealed a plan to cut its workforce after it posted a wider than expected quarterly loss, sending shares in the group tumbling.

The New York-listed oat milk group blamed the performance on a combination of factors, including Covid-19 restrictions in Asia and production challenges in the US.

The group is now forecasting revenues of $700mn to $720mn, down from predictions of $800mn to $830mn, because of "inflation, rising interest rates and the impact on consumer behaviour, as well as updated foreign currency exchange rates", it said

Sales for the three months to September rose 7 per cent to $183mn, $28mn short of consensus estimates. Gross profit was $5mn in the same period, down from $44.9mn a year ago, while it recorded a net loss of $107.9mn, or 18 cents a share, wider than the loss of $41.2mn, or 7 cents a share.

Oatly's disappointing results follow that of plant-based meat group Beyond Meat, which this month reported a 22 per cent decline in sales and negative gross profit margins for the third quarter, reflecting the struggle that plant-based protein companies face as consumers rein in spending and costs rise because of high inflation.

Toni Petersson, Oatly's chief executive, said the figures were "below our expectations". The company, which employed about 1,280 people in 2021, said it was targeting costs savings of $25mn a year from the "reorganisation", which will take effect from the first quarter of next year. It did not disclose the number of jobs that would be lost.

Oatly shares, which rose to a high of $29 after its initial public offering in 2021, were down more than 11 per cent at $2.16 in midday New York trading.

Nik Modi, analyst at RBC Capital Markets, said in a note that Oatly's results showed the difficulty of operating as a relatively small player in a challenging environment. While the fall in the shares could make them attractive to investors, in the short term the company continued to run "into various delays and challenges causing significant volatility in their quarter-to-quarter results", Modi added.

COMPANIES & MARKETS

Crypto. US lobbying

Bankman-Fried's downfall cuts off big source of funds for Democrats

FTX founder emerges as second-largest donor to party causes after Soros

STEFANIA PALMA AND COURTNEY WEAVER — WASHINGTON
CAITLIN GILBERT — NEW YORK

Pac man: some lobbyists and donors said they suspected Sam Bankman-Fried's primary goal in politics had been to further his crypto interests
Jeenah Moon/Bloomberg

Sam Bankman-Fried stormed on to the US political scene with multimillion-dollar donations that led lawmakers, particularly Democrats, to believe he was ushering in the next generation of donors. But in a matter of days, his business empire collapsed into bankruptcy and the prospect of millions more in donations evaporated.

Before the fall of Bankman-Fried's cryptocurrency exchange FTX, the entrepreneur had emerged as the second-largest donor to Democrats after George Soros. He had vowed to give up to $1bn to political candidates linked to causes he supported, a pledge from which he later backed away.

He also became one of the most prominent crypto representatives in Washington, supporting digital asset legislation and hiring former regulators as advisers.

Bradley Beychok, co-founder of the Democratic super political action committee (Pac) American Bridge 21st Century, said Bankman-Fried "came on the scene out of nowhere [and] became a large supporter of different causes and candidates very quickly", adding that he had built an "organised campaign".

But a liquidity crisis that has forced the 30-year-old's $32bn empire into bankruptcy has erased a potential pool of funds linked to a seemingly reliable player in an often volatile industry.

"Sam didn't live up to his commitments," said one Democratic lobbyist. Bankman-Fried's grand spending promises had been "more bluster than action", the lobbyist added.

The entrepreneur was the second-largest donor to Democratic-leaning groups during the latest midterm elections, spending $36mn. Soros spent $126mn but the Pac he supported with that large donation only spent about $15mn this cycle.

The majority of Bankman-Fried's donations, about $27mn, went to the Protect Our Future Pac, which supported candidates that prioritised pandemic prevention, one of his interests.

It endorsed 25 Democrats in congressional races this cycle, of which 18 have so far won their respective races.

Chief among these were Virginia representative Abigail Spanberger and Florida representative-elect Maxwell Frost, who at 25 will be Congress's first Generation Z member.

While the volumes pledged were akin to those given by longstanding corporate titans, some argue Bankman-Fried's donations were not entirely effective. In Oregon's sixth congressional district, Bankman-Fried's super Pac spent a whopping $11mn on Carrick Flynn, a pandemic researcher and first-time congressional candidate who failed to advance to the election.

Some lobbyists and donors said they suspected Bankman-Fried's primary goal in politics had been to further his crypto interests. During the 2022 cycle, Bankman-Fried donated $155,000 to rightwing Pacs: the Alabama Conservatives Fund, which backed Republican Alabama Senator-elect Katie Britt, a crypto supporter; and Heartland Resurgence, which backed Senator John Boozman of Arkansas, the top Republican on the Senate agriculture committee that oversees crypto. Bankman-Fried also gave to Debbie Stabenow, the committee's Democratic chair.

Both Boozman and Stabenow said this week that they would continue to support the Digital Commodities Consumer Protection Act, for which Bankman-Fried campaigned.

The FTX founder and the company's US counterpart FTX.US gave $3.5mn to the GMI Pac, which in turn transferred approximately $5.8mn to Web3 Forward Pac, a pro-crypto super Pac.

Web3 Forward has backed Democrats including Senator-elect John Fetterman in Pennsylvania and Oregon senator Ron Wyden, who chairs the powerful Senate finance committee. During the election, Bankman-Fried sat out some high-profile races including Tim Ryan's failed Senate run in Ohio, although Ryan had sought to refine the infrastructure bill so as not to hit crypto groups.

David McIntosh, president of the Conservative Club for Growth, which has opposed many of the policies that Bankman-Fried advocated for, said the FTX founder had been "jumping with two feet" into the political realm. "He didn't have very good political consultants . . . What Sam did was pick and choose individual targets and got involved in the primaries — which didn't work."

The entrepreneur also grew his profile in Washington by hiring former regulators to liaise with financial watchdogs, including Mark Wetjen, former acting chair of the Commodity Futures Trading Commission. FTX had submitted an application with the CFTC to automate risk management tasks in futures markets that are typically completed by brokers. Wetjen declined to comment.

The concerns over FTX's financial health and its links to Bankman-Fried's proprietary trading group, Alameda Research, that triggered a deluge of customer withdrawals from the exchange have also raised questions about the source of funds used for donations.

The US Securities and Exchange Commission is investigating FTX over its crypto lending activities and management of customer funds, according to a person familiar with the matter.

But legal experts argue that, even if these funds were proven to be linked to wrongdoing, there probably would be no legal basis for clawbacks.

James Cox, professor of corporate and securities law at Duke University, said this was due to the "bona fide" principle, which protects individuals who accept money with no knowledge that it derives from illicit activity. What could trigger refunds might not be the law, he added, "but the question about how can the party overcome the opprobrium of being associated with ill-gotten gains".

Harking back to another business scandal that reverberated through US politics, John Coffee, a professor at Columbia Law School, said: "I do not see the political recipients of Bankman-Fried's donations as personally liable but they may be embarrassed into returning these donations, just as many returned donations from the Sacklers," in reference to the family embroiled in the nation's devastating opioid scandal.

But if lawmakers remain comfortable with Bankman-Fried and his donations do dry up, Beychok said this would not hurt Democrats, who had consistently out-raised Republicans in recent cycles.

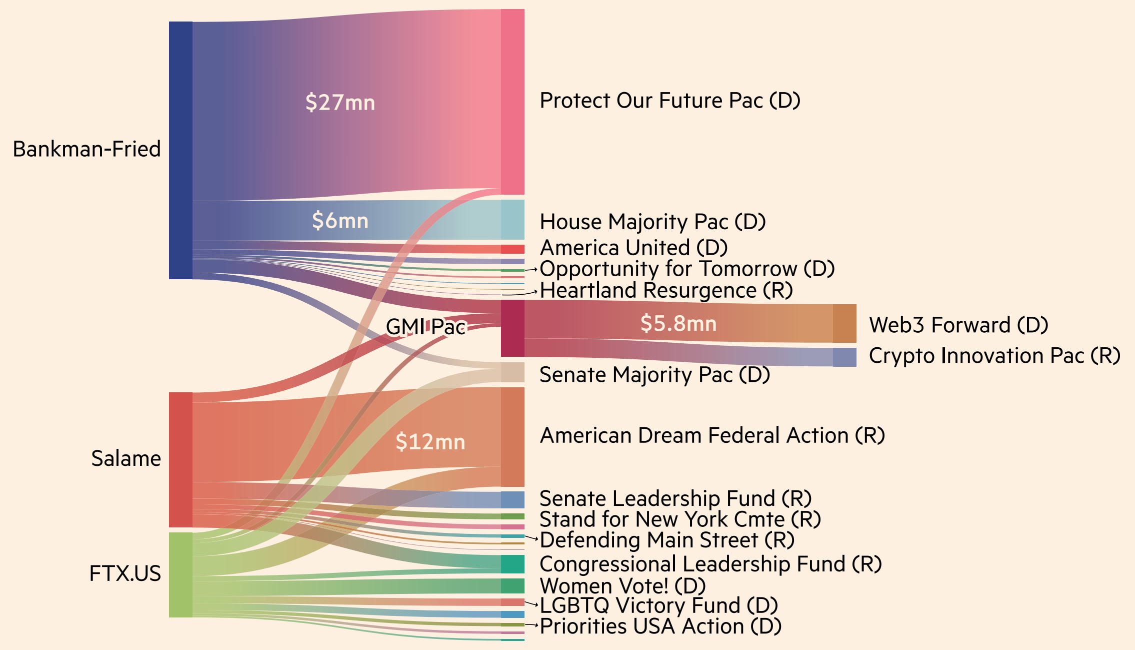
"I rest assured that 2024 will be a spendorama and I don't think that anything that happens . . . with FTX is going to change that," Beychok said.

Additional reporting by Arash Massoudi in London

See Lex

FTX executives doled out nearly $72mn to Democrats and Republicans

Total political spending ($mn) by Sam Bankman-Fried, Ryan Salame and FTX.US during the 2021-2022 election cycle.
Each bar in the flowchart is sized by the amount of money spent



Sources: FEC filings; OpenSecrets; FT research

FT
Our global team gives you market-moving news and views, 24 hours a day
ft.com/markets

Banks

New BoI chief to be exempt from Dublin's crisis-era pay restrictions

JUDE WEBBER — DUBLIN

Bank of Ireland's new chief executive will be paid nearly €1mn, almost twice the level of a controversial pay cap on top brass at Irish banks that were bailed out more than a decade ago.

Myles O'Grady, who was named to lead Ireland's biggest bank yesterday, will receive the same €960,000 package as his predecessors — Francesca McDonagh, who moved to Credit Suisse in September, and Richie Boucher, who was chief executive from 2009 to 2017 — the bank confirmed.

O'Grady, who takes the helm at a transformative time for the industry with the exit of Belgian bank KBC and Ulster Bank from the Irish market, has been awarded the same exemption from the restrictions as his two predecessors, the bank said.

Having quit as finance director last year because of the €500,000 cap on senior executives' pay, O'Grady will continue to push for the scrapping of remuneration restrictions that were imposed after the Irish banking collapse.

McDonagh had been a vocal opponent of the curbs, which the bank argues put Irish lenders at a competitive disadvantage in Europe.

BoI also believes that it should no longer be subject to the pay cap because it returned to private ownership with the sale of the state's last stake in September, the first of Ireland's three bailed-out high-street banks to do so.

The state pumped €4.7bn into BoI between 2009 and 2011 in a sector-wide crisis sparked by a reckless mortgage lending spree that ended up crashing the entire Irish economy. In addition to the pay cap, bonuses and benefits — such as childcare and healthcare — are not allowed.

Myles O'Grady is a vocal opponent of the curbs on top bankers' pay

Boucher, chief executive at the time of the crash, was allowed to keep his pre-crisis package because he was remaining in the same role.

That precedent enabled McDonagh and now O'Grady also to be granted exemptions from the finance ministry.

"The remuneration restrictions on Irish banks apply to all colleagues at every level . . . from most junior to most senior," the BoI said. "Ireland is alone in Europe in applying these types of restrictions. This means all other companies — both banks and corporates from outside financial services — have a competitive advantage over Irish banks when it comes to the attraction and retention of talent."

Finance minister Paschal Donohoe "recognises that these restrictions create recruitment and retention problems" for the three banks, affecting about 20,000 workers, the finance ministry said.

But it added: "There are currently no plans to change policy on this matter."

Regulatory filings

SEC demands more disclosures of inflation impact from US groups

STEPHEN FOLEY — NEW YORK

The Securities and Exchange Commission has been firing off letters to some of the largest companies in the US demanding that they give investors more information on how inflation is affecting their business.

Staff at the regulator have become concerned that some companies' financial reports gloss over the impact of rising prices on profits and liquidity.

The SEC is using its "filing review process" to extract more details that investors can use to judge how companies are responding to inflation that recently hit a 40-year high.

Shipping group FedEx and retailer Costco are among the companies whose public filings attracted a letter from the SEC demanding that they expand their disclosures.

Sarah Lowe, deputy chief accountant in the SEC's office of corporation finance, told a conference for finance executives last week that companies needed to do more than simply say inflation was affecting their business.

"Instead, we are asking that you should explain how it has affected results of operations, sales, profits, capital expenditures or maintenance you may do," she told the event organised by Financial Executives International.

Filings should also discuss how business goals and pricing strategies were changing as a result, she said. "Are you forced to pass along your increased costs to customers or do you just absorb those losses? Are you negotiating with customers about price changes and is there uncertainty about how those talks will resolve?"

> 'You refer to mitigating inflation headwinds but it is unclear what specific actions you have taken'

Companies must respond in writing to the SEC's sometimes pointed comments and are expected to follow the regulator's demands in future filings.

FedEx told investors that inflation was negatively affecting its operating results this year but the SEC wrote in a letter in September that it should add more on the specific factors behind its rising costs and what it was doing to limit the impact.

SEC staff told the industrial giant Eastman Chemical in August to identify the "specific raw materials and energy commodities" where higher prices were hitting its results.

In a letter to water technology group Xylem, they wrote: "You refer to mitigating inflation headwinds but it is unclear what specific actions you have taken."

In a letter to Costco in April, SEC staff said they had heard executives discussing on quarterly earnings calls how the retailer was adjusting merchandising and pricing strategies in response to inflation.

That kind of discussion should also be in the formal regulatory filings, they wrote.

The SEC's letters are made public but only after an interval.

The SEC said earlier this year that it would use its filing review process to demand more information about how the war in Ukraine was affecting some companies and to ask for extra disclosures about disruption to global supply chains.

The day in the markets

What you need to know

- **Wall Street falls and dollar strengthens after rate rise concerns return**
- **US Treasuries also hit by selling pressures as Fed officials weigh in**
- **China-related stocks boosted by softening of zero-Covid policy**

Shares in Chinese property developers jump from 2022 lows

Hang Seng mainland properties index

Source: Refinitiv

The dollar strengthened against its peers and Wall Street stocks were steady yesterday as investors turned cautious over the pace of interest rate rises by the US Federal Reserve following comments from senior central bank officials.

The benchmark S&P 500 traded flat and the tech-heavy Nasdaq Composite slipped 0.1 per cent as investors paused after a rally late last week induced by better than forecast inflation data.

The S&P added 6.4 per cent on Thursday and Friday and the Nasdaq climbed 9.3 per cent, its biggest two-day gain since 2008.

The moves came after annual US consumer price growth slowed to 7.7 per cent in October, less than the 8 per cent expected by economists.

The reading eases pressure on the Fed to increase its main policy rate by 0.75 percentage points when it next meets in December, having implemented four such rises in a row in an aggressive campaign to tame historically high rates of inflation.

Over the weekend, Mary Daly, president of the San Francisco branch of the Fed, warned that the next phase of policymaking would be "difficult", adding: "You have to be mindful of the cumulative tightening that's already in the system. You have to be mindful of the lags in monetary policy."

Fed governor Chris Waller told a UBS conference in Australia yesterday that rates were going to "keep going up" and "stay high for a while until we see this inflation get down closer to our target".

In government bond markets, the yield on two-year US Treasuries rose 8 basis points to 4.4 per cent while the yield on the benchmark 10-year Treasury note added 4bp to 3.87 per cent.

The US Dollar index, which tracks the currency against six others, added 0.5 per cent, recovering some of its losses last week.

Across the Atlantic, the pan-regional Stoxx Europe 600 index added 0.1 per cent, consolidating a more than 3 per cent rise last week. London's FTSE 100 gained 0.9 per cent.

Shares in China-related real estate stocks soared after Beijing pivoted to support China's indebted property sector and softened its longstanding zero-Covid policy.

The Hang Seng Mainland Properties index added as much as 13.7 per cent.

The broader Hang Seng index in Hong Kong closed up 1.7 per cent, trimming gains after rising as much as 3.9 per cent, while China's CSI 300 finished 0.2 per cent higher. **George Steer**

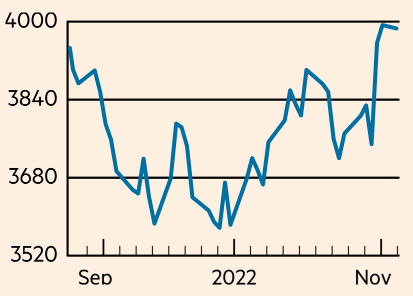
Markets update

	US	Eurozone	Japan	UK	China	Brazil
Stocks	**S&P 500**	**Eurofirst 300**	**Nikkei 225**	**FTSE100**	**Shanghai Comp**	**Bovespa**
Level	3985.94	1705.81	27963.47	7385.17	3083.40	112912.94
% change on day	-0.18	0.13	-1.06	0.92	-0.13	0.59
Currency	**$ index (DXY)**	**$ per €**	**Yen per $**	**$ per £**	**Rmb per $**	**Real per $**
Level	106.917	1.033	140.415	1.173	7.039	5.318
% change on day	0.588	0.000	0.971	-0.424	-1.061	0.937
Govt. bonds	**10-year Treasury**	**10-year Bund**	**10-year JGB**	**10-year Gilt**	**10-year bond**	**10-year bond**
Yield	3.873	2.145	0.238	3.361	2.830	12.631
Basis point change on day	5.610	-0.900	1.140	0.900	9.600	-4.700
World index, Commods	**FTSE All-World**	**Oil - Brent**	**Oil - WTI**	**Gold**	**Silver**	**Metals (LMEX)**
Level	407.31	94.16	86.77	1759.35	21.48	3968.90
% change on day	-0.17	-1.91	-2.46	0.84	1.85	3.74

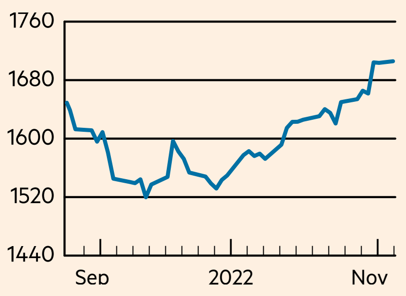
Yesterday's close apart from: Currencies = 16:00 GMT; S&P, Bovespa, All World, Oil = 17:00 GMT; Gold, Silver = London pm fix. Bond data supplied by Tullett Prebon.

Main equity markets

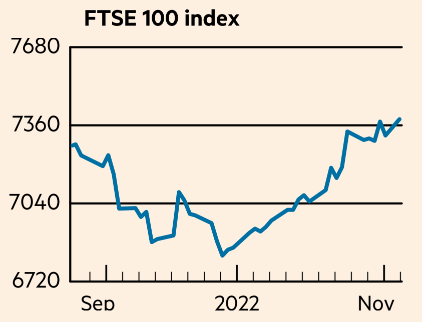
S&P 500 index



Eurofirst 300 index



FTSE 100 index



Biggest movers

%	US		Eurozone		UK	
Ups	Biogen	4.29	Infineon Tech	6.04	Ocado	13.99
	Netflix	4.23	Vopak	5.92	Informa	5.75
	Valero Energy	4.11	Merck	5.16	B&m Eur Value Retail S.a.	4.62
	Cf Industries Holding	3.62	Grifols	4.40	Bt	4.30
	Pfizer	3.56	Saipem	4.17	Admiral	3.62
Downs	Hasbro	-8.79	Adidas	-2.88	Harbour Energy	-9.63
	Dominion Energy	-4.59	Oci	-2.78	Intermediate Capital	-3.64
	Moody's	-4.08	Rwe	-2.41	Unite	-2.47
	Blackrock	-4.07	Dsm	-2.11	London Stock Exchange	-2.41
	Dentsply Sirona	-3.85	Kbc	-1.93	Flutter Entertainment	-2.06

Prices taken at 17:00 GMT. Based on the constituents of the FTSE Eurofirst 300 Eurozone. All data provided by Morningstar unless otherwise noted.

Wall Street

The trimming of its full-year outlook weighed on plant-based milk producer **Oatly**, which expected sales to land between $700mn and $720mn, down from its $800mn to $830mn range stated in August.

It blamed the revision on "operational challenges in Americas", foreign exchange headwinds and "Covid-19 pressures" that had affected sales in Asia.

Biopharma group **Biogen** rallied after Swiss rival Roche revealed that trials of its Alzheimer's drug had failed to meet its primary goal.

Biogen said back in September that it would apply for regulatory approval for its Alzheimer's drug, Lecanemab, following a late-stage study that showed it slowed the rate at which the disease progressed.

A double downgrade by Bank of America sent **Hasbro** to the bottom of the S&P 500 index.

The move centred on the toymaker's handling of its Magic: The Gathering business, in which players collect cards to battle one another.

"The primary concern is that Hasbro has been overproducing Magic cards which has propped up Hasbro's recent results but is destroying the long-term value of the brand," said BofA.

Magic accounted for about 15 per cent of Hasbro's revenue and 35 per cent of its core profits, said the broker. *Ray Douglas*

Europe

Pharma group **MorphoSys** tumbled following a setback linked to an experimental Alzheimer's drug.

The German company's licensing partner, Roche, announced that a closely watched trial for Gantenerumab showed that the treatment had failed to slow the decline in patients suffering with early stages of the disease.

The news prompted Citi to downgrade MorphoSys to "sell" because the group's royalty income would now be less than expected.

A record quarter pushed Germany's **Adesso** up sharply, with the IT service provider posting a 39 per cent year-on-year jump in sales to €241mn, which was 6 per cent ahead of Jefferies' estimate.

These results owed much to "an improvement in capacity utilisation and encouraging licence revenue", said chief financial officer Jörg Schroeder, who added that it expected to achieve full-year sales at the upper end of its forecast.

Finnish machinery manufacturer **Cargotec** fell on news that it planned to sell MacGregor, its division that handles marine cargo, although it will not be starting the process now.

Cargotec admitted that, "from a value creation perspective, the timing for divesting the business is not ideal" due in part to "uncertainty in the financial market". *Ray Douglas*

London

Oil and gas group **Harbour Energy** sank to the bottom of the FTSE 100 index following reports that the UK chancellor was weighing an increase in the windfall tax in this week's Autumn Statement.

Jeremy Hunt is set to raise the rate of a one-off levy on North Sea energy producers from 25 per cent to 30 per cent and extend its duration from 2025 to 2028.

Harbour's peers **EnQuest** and **Serica** also sank.

Near the top of the blue-chip benchmark was exhibitions organiser **Informa**, which raised its full-year earnings and revenue forecasts.

This upgrade reflected outperformance in live and on-demand events and "continuing growth in academic markets", it said.

Share trading in **Joules** was suspended as the clothes retailer revealed its intention to appoint administrators.

The group said earlier this month that its "trading underperformance . . . [had] resulted in the company's working capital position being below expectations".

Russ Mould, investment director at AJ Bell, said rivals Next and Frasers were the frontrunners in picking up the Joules brand, "given their relatively robust position and recent habit of hoovering up assets from failed retail businesses". *Ray Douglas*

Asean must rise up the agenda of global investors

Trinh Nguyen

Markets Insight

From Joe Biden to Xi Jinping, global leaders are being drawn to south-east Asia for three large international events: the G20 summit in Indonesia, the Asean meeting in Cambodia and the Apec gathering in Thailand.

Pressing global issues such as climate change and inflation are on the agenda but building ties to south-east Asia is in itself very much a prize for competing global superpowers and even middle ranking ones such as South Korea and Australia.

South-east Asia is the diplomatic and business friend that everyone needs. This is not just to diversify supply chains but also to seek out growth opportunities as hurdles that range from tariffs to investment curbs affect business between the US and China. Investors should take note and follow suit.

The 10-member, 680mn-people association together accounts for 3.4 per cent of global gross domestic product and 7.7 per cent of global export share.

The six largest economies in Asean — Indonesia, Thailand, the Philippines, Singapore, Malaysia and Vietnam — are far from fragile from shocks such as the global energy crisis, a higher dollar and weakening Chinese demand. They are seeing strong economic growth, and foreign direct investment inflows are surging in a difficult global environment.

Singapore is gaining ground in financial services and high-tech, Vietnam and Malaysia are receiving more FDI inflows into manufacturing and Indonesia is receiving record-high investments to tap into its mineral resources, especially nickel.

Beyond greenfield investment, south-east Asia was the largest recipient of completed mergers and acquisitions in Asia in the first half of 2022, receiving 56 per cent of total inbound flows.

Inbound transactions in Indonesia alone were two times greater than for mainland China. Interestingly, it is not just the west that is deploying more capital to Asean but also China, which has reduced offshore M&A deals elsewhere.

With Cambodia's GDP per capita as low as $1,612 in 2021 and Singapore's as high as $64,840, the region's diversity in not just economic development and capital markets but also governance, language, culture and natural resources has been seen as a weakness. But Asean's humility not just in respecting each other's sovereignty but also in global affairs has become an advantage in an age of global power competition.

> The Asian financial crisis and turmoil over a rise in US interest rates taught Asean to beef up defences

Asean is also receiving geopolitical support to expand market access. Vietnam's signing of a free trade agreement with the EU in 2019 catapulted its attractiveness further — not just for EU companies but also Chinese groups wanting access to reduced tariffs.

Singapore also has an EU FTA and others are under negotiation with countries such as Thailand. But it is not just the EU. From South Korea to Japan and the US to China, countries are increasing exposure to Asean.

That is not to say Asean itself cannot be a source of risk for investors, from messy domestic politics in Thailand and Malaysia to Covid-19 lockdowns in the third quarter of 2021 that shook global footwear, electronic and semiconductor supply chains. There are also longstanding challenges such as the South China Sea, the protection of natural resources along the Mekong River and the deteriorating situation in Myanmar.

However, the region's resilience is improving. The Asian financial crisis and market turmoil over a rise in US interest rates in 2013 taught Asean to beef up its defences.

Exposure to foreign ownership of portfolio flows has largely been reduced, especially by Indonesia. It is emerging as the most resilient economy in Asia-Pacific, facing global shocks with one of the best currency and equity performances in the year to date.

Vietnam, having learnt lessons from its 2011 banking crisis, is reining in real estate excesses. While this will probably lead to a downturn of the sector, it will boost sustainability down the road. Thailand is trying to diversify its economy away from tourism.

Major Asean economies are now led by more competent technocrats in finance ministries and central banks, helping the region navigate this present crisis better than other emerging markets. Yet, despite this new resilience, the aftershock of higher interest rates, weaker global demand and the energy crisis will still push 2023 growth rates down from higher levels in 2022.

Nonetheless, even with a cyclical downturn expected in 2023, south-east Asia is emerging as both a winner and a prize in the geopolitical contest for investment and trade.

Trinh Nguyen is senior economist for emerging Asia at Natixis Corporate & Investment Banking

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MARKET DATA

WORLD MARKETS AT A GLANCE
FT.COM/MARKETSDATA

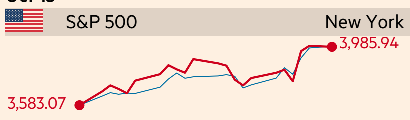
Change during previous day's trading (%)

S&P 500	Nasdaq Composite	Dow Jones Ind	FTSE 100	FTSE Eurofirst 300	Nikkei	Hang Seng	FTSE All World $	$ per €	$ per £	¥ per $	£ per €	Oil Brent $ Sep	Gold $
-0.18%	-0.57%	0.13%	0.92%	0.13%	-1.06%	1.70%	-0.17%	No change	-0.424%	0.971%	0.456%	-0.93%	0.84%

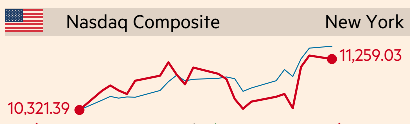
Stock Market movements over last 30 days, with the FTSE All-World in the same currency as a comparison

AMERICAS

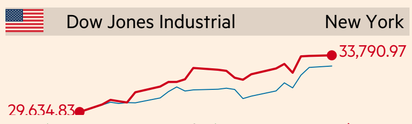
Oct 15 - - (Index / All World)

S&P 500 — New York


Day -0.18% Month 11.26% Year -14.87%

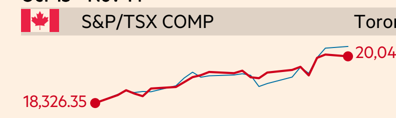
Nasdaq Composite — New York


Day -0.57% Month 9.13% Year -28.98%

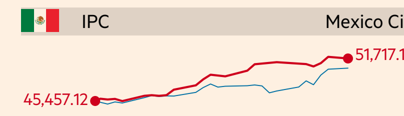
Dow Jones Industrial — New York


Day 0.13% Month 14.03% Year -6.39%

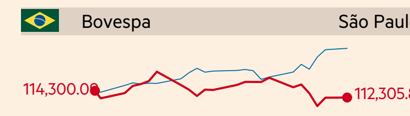
Oct 15 - Nov 14 (Index / All World)

S&P/TSX COMP — Toronto


Day -0.49% Month 9.14% Year -8.12%

IPC — Mexico City


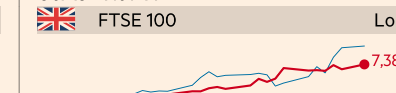
Day -0.40% Month 13.91% Year 0.64%

Bovespa — São Paulo


Day 0.59% Month 0.75% Year 6.19%

EUROPE

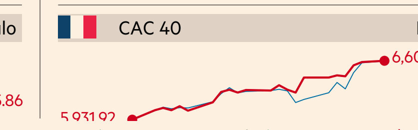
Oct 15 - Nov 14 (Index / All World)

FTSE 100 — London


Day 0.92% Month 8.25% Year 0.57%

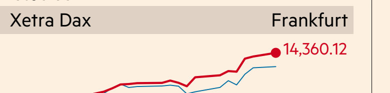
FTSE Eurofirst 300 — Europe

Day 0.13% Month 10.09% Year -9.42%

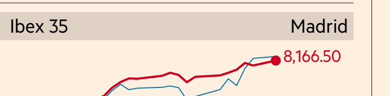
CAC 40 — Paris


Day 0.22% Month 12.42% Year -6.80%

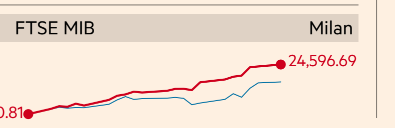
Oct 15 - Nov 14 (Index / All World)

Xetra Dax — Frankfurt


Day 0.62% Month 7.97% Year NaN%

Ibex 35 — Madrid


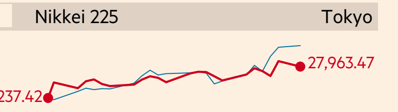
Day 0.84% Month 11.13% Year -10.07%

FTSE MIB — Milan


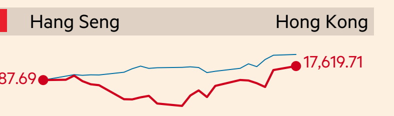
Day 0.58% Month 20.11% Year -11.35%

ASIA

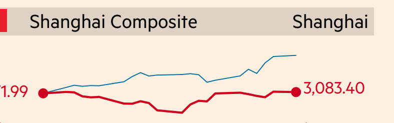
Oct 15 - Nov 14 (Index / All World)

Nikkei 225 — Tokyo


Day -1.06% Month 6.71% Year -5.45%

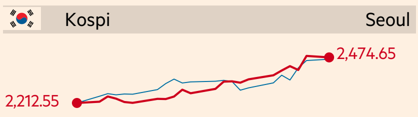
Hang Seng — Hong Kong


Day 1.70% Month 7.51% Year -30.43%

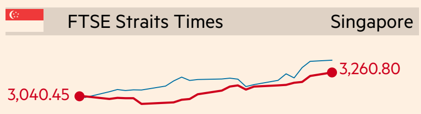
Shanghai Composite — Shanghai


Day -0.13% Month 3.67% Year -12.88%

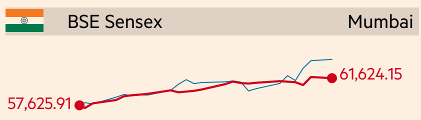
Oct 15 - Nov 14 (Index / All World)

Kospi — Seoul


Day -0.34% Month 14.42% Year -16.64%

FTSE Straits Times — Singapore


Day 1.01% Month 7.27% Year 1.02%

BSE Sensex — Mumbai


Day -0.28% Month 7.70% Year 1.57%

Country	Index	Latest	Previous
Argentina	Merval	153187.74	150413.35
Australia	All Ordinaries	7350.20	7350.10
	S&P/ASX 200	7146.30	7158.00
	S&P/ASX 200 Res	5994.80	5813.50
Austria	ATX	3205.70	3203.75
Belgium	BEL 20	3671.77	3662.94
	BEL Mid	9612.38	9559.15
Brazil	IBovespa	112912.94	112253.49
Canada	S&P/TSX 60	1211.20	1216.70
	S&P/TSX Comp	20012.56	20111.51
	S&P/TSX Div Met & Min	1407.74	1387.13
Chile	S&P/CLX IGPA Gen	28825.46	29272.56
China	FTSE A200	10050.63	10074.64
	FTSE B35	9000.71	8988.96
	Shanghai A	3231.77	3235.80
	Shanghai B	288.74	291.43
	Shanghai Comp	3083.40	3087.29
	Shenzhen A	2105.75	2111.14
	Shenzhen B	1125.21	1126.71
Colombia	COLCAP	1261.61	1260.21
Croatia	CROBEX	2013.05	2011.29

Country	Index	Latest	Previous
Cyprus	CSE M&P Gen	68.46	68.68
Czech Republic	PX	1257.30	1258.99
Denmark	OMXC Copenahgen 20	1727.36	1709.16
Egypt	EGX 30	12136.37	11980.62
Estonia	OMX Tallinn	1754.37	1751.24
Finland	OMX Helsinki General	10980.13	10960.95
France	CAC 40	6609.17	6594.62
	SBF 120	5082.08	5072.95
Germany	M-DAX	26304.83	25975.00
	TecDAX	3119.62	3089.31
	XETRA Dax	14313.30	14224.86
Greece	Athens Gen	900.00	897.78
	FTSE/ASE 20	2189.22	2184.86
Hong Kong	Hang Seng	17619.71	17325.66
	HS China Enterprise	5979.80	5867.31
	HSCC Red Chip	3440.88	3317.82
Hungary	Bux	44157.71	43698.34
India	BSE Sensex	61624.15	61795.04
	Nifty 500	15650.20	15649.10
Indonesia	Jakarta Comp	7019.39	7089.21
Ireland	ISEQ Overall	7235.90	7328.52
Israel	Tel Aviv 125	1986.41	1990.89

Country	Index	Latest	Previous
Italy	FTSE Italia All-Share	26627.57	26508.39
	FTSE Italia Mid Cap	40201.20	40364.65
	FTSE MIB	24596.69	24455.57
Japan	2nd Section	7228.27	7239.06
	Nikkei 225	27963.47	28263.57
	S&P Topix 150	1687.12	1705.33
	Topix	1930.17	1935.49
Jordan	Amman SE	2437.51	2456.36
Kenya	NSE 20	1666.47	1667.34
Kuwait	KSX Market Index	6633.44	6603.51
Latvia	OMX Riga	1103.73	1105.74
Lithuania	OMX Vilnius	913.00	911.85
Luxembourg	LuxX	1475.87	1477.90
Malaysia	FTSE Bursa KLCI	1464.00	1468.21
Mexico	IPC	51751.24	51959.20
Morocco	MASI	10355.27	10355.27
Netherlands	AEX	706.67	702.91
	AEX All Share	962.64	958.81
New Zealand	NZX 50	11231.97	11311.76
Nigeria	SE All Share	43968.75	43942.82
Norway	Oslo All Share	1017.37	1006.88
Pakistan	KSE 100	42850.83	43092.95

Country	Index	Latest	Previous
Philippines	Manila Comp	6354.76	6286.77
Poland	Wig	55568.07	54421.13
Portugal	PSI 20	5779.84	5739.34
	PSI General	4411.13	4391.49
Romania	BET Index	11625.07	11509.09
Russia	Micex Index	2436.57	2445.30
	RTX	1245.71	1212.57
Saudi-Arabia	TADAWUL All Share Index	11246.93	11211.70
Singapore	FTSE Straits Times	3260.80	3228.33
Slovakia	SAX	337.60	337.60
Slovenia	SBI TOP	-	-
South Africa	FTSE/JSE All Share	72822.47	72982.80
	FTSE/JSE Res 20	71846.65	72312.88
	FTSE/JSE Top 40	66289.27	66453.08
South Korea	Kospi	2474.65	2483.16
	Kospi 200	321.53	323.09
Spain	IBEX 35	8166.50	8098.10
Sri Lanka	CSE All Share	8363.29	8419.06
Sweden	OMX Stockholm 30	2107.99	2108.67
	OMX Stockholm AS	814.44	817.24
Switzerland	SMI Index	10999.59	11127.15

Country	Index	Latest	Previous
Taiwan	Weighted Pr	14174.90	14007.56
Thailand	Bangkok SET	1623.38	1637.29
Turkey	BIST 100	4570.20	4570.20
UAE	Abu Dhabi General Index	9222.93	9251.11
UK	FT 30	2512.20	2488.80
	FTSE 100	7385.17	7318.04
	FTSE 4Good UK	6683.05	6630.87
	FTSE All Share	4067.93	4036.84
	FTSE techMARK 100	6227.81	6233.79
USA	DJ Composite	11295.84	11261.05
	DJ Industrial	33790.97	33747.86
	DJ Transport	14677.15	14554.55
	DJ Utilities	927.62	927.43
	Nasdaq 100	11770.81	11817.01
	Nasdaq Cmp	11259.03	11323.33
	NYSE Comp	15337.08	15352.69
	S&P 500	3985.94	3992.93
	Wilshire 5000	39712.51	39835.62
Venezuela	IBC	10175.85	9394.72
Vietnam	VNI	941.04	954.53

Country	Index	Latest	Previous
Cross-Border	DJ Global Titans ($)	418.93	419.45
	Euro Stoxx 50 (Eur)	3886.57	3868.50
	Euronext 100 ID	1257.38	1254.90
	FTSE 4Good Global ($)	9663.07	9677.18
	FTSE All World ($)	407.31	408.02
	FTSE E300	1705.81	1703.62
	FTSE Eurotop 100	3348.70	3341.45
	FTSE Global 100 ($)	2501.06	2504.03
	FTSE Gold Min ($)	1675.83	1647.42
	FTSE Latibex Top (Eur)	4440.00	4432.20
	FTSE Multinationals ($)	2616.36	2481.08
	FTSE World ($)	740.33	742.07
	FTSEurofirst 100 (Eur)	4503.79	4480.08
	FTSEurofirst 80 (Eur)	5288.20	5262.28
	MSCI ACWI Fr ($)	618.66	607.66
	MSCI All World ($)	2674.08	2636.55
	MSCI Europe (Eur)	1740.47	1740.23
	MSCI Pacific ($)	2595.38	2484.01
	S&P Euro (Eur)	1745.37	1737.85
	S&P Europe 350 (Eur)	1750.24	1747.68
	S&P Global 1200 ($)	2938.72	2947.16
	Stoxx 50 (Eur)	3672.87	3659.65

(c) Closed. (u) Unavaliable. † Correction. ♥ Subject to official recalculation. For more index coverage please see www.ft.com/worldindices. A fuller version of this table is available on the ft.com research data archive.

STOCK MARKET: BIGGEST MOVERS

AMERICA

ACTIVE STOCKS	stock traded m's	close price	Day's change
Tesla	88.9	192.06	-3.91
Advanced Micro Devices	46.0	74.46	2.09
Amazon.com	44.4	98.76	-2.03
Nvidia	44.2	163.78	0.51
Apple	43.0	148.42	-1.28
Microsoft	31.2	242.35	-4.76
Netflix	21.1	302.39	12.26
Alphabet	11.2	95.52	-0.89
Exxon Mobil	10.5	114.06	1.02
Alphabet	9.5	95.85	-0.89
BIGGEST MOVERS	**Close price**	**Day's change**	**Day's chng%**
Ups			
Biogen	301.88	12.43	4.29
Netflix	302.39	12.26	4.23
Valero Energy	139.47	5.51	4.11
Cf Industries Holding	106.13	3.71	3.62
Pfizer	49.30	1.70	3.56
Downs			
Hasbro	57.84	-5.58	-8.79
Dominion Energy	58.83	-2.83	-4.59
Moody's	297.71	-12.66	-4.08
Blackrock	743.25	-31.50	-4.07
Dentsply Sirona	30.82	-1.24	-3.85

Based on the constituents of the S&P500

LONDON

ACTIVE STOCKS	stock traded m's	close price	Day's change
Astrazeneca	200.1	10868.00	270.00
Shell	179.6	2358.00	-2.00
Unilever	171.3	4032.50	93.00
Rio Tinto	166.2	5407.00	9.00
Aveva	163.7	3176.00	7.00
Glencore	162.7	512.00	10.00
Bp	126.8	480.50	2.10
Compass	116.5	1822.50	34.00
Vodafone	105.9	104.16	0.44
Gsk	96.8	1365.00	41.40
BIGGEST MOVERS	**Close price**	**Day's change**	**Day's chng%**
Ups			
Ocado	925.60	113.60	13.99
Informa	584.40	31.80	5.75
Carnival	809.40	40.60	5.28
B&m Eur Value Retail S.a.	403.30	17.80	4.62
Volution	367.00	15.50	4.41
Downs			
Aston Martin Lagonda Global Holdings	143.05	-15.65	-9.86
Harbour Energy	342.60	-36.50	-9.63
Close Brothers	1081.00	-50.00	-4.42
Integrafin Holdings	305.20	-11.80	-3.72
Intermediate Capital	1242.50	-47.00	-3.64

Based on the constituents of the FTSE 350 index

EURO MARKETS

ACTIVE STOCKS	stock traded m's	close price	Day's change
Roche Gs	697.5	319.99	-13.25
Novartis N	359.2	80.65	-0.21
Asml Holding	358.2	563.40	11.90
Nestle N	327.1	110.62	0.02
Eni	237.9	14.47	0.20
Novo Nordisk B A/s	198.2	111.05	3.35
Totalenergies	192.1	57.12	0.09
Allianz Se Na O.n.	172.4	203.05	2.40
Intesa Sanpaolo	167.2	2.19	0.03
Lvmh	163.3	700.00	-6.20
BIGGEST MOVERS	**Close price**	**Day's change**	**Day's chng%**
Ups			
Infineon Tech.ag Na O.n.	30.96	1.48	5.02
Bayer Ag Na O.n.	51.84	1.65	3.29
Novo Nordisk B A/s	111.05	3.35	3.11
Fresenius Se+co.kgaa O.n.	24.35	0.73	3.09
Siemens Health.ag Na O.n.	51.52	1.24	2.47
Downs			
Roche I	382.58	-19.86	-4.93
Sika N	259.66	-11.97	-4.41
Roche Gs	319.99	-13.25	-3.98
Vestas Wind Systems A/s	23.66	-0.90	-3.66
Adyen	1548.20	-53.80	-3.36

Based on the constituents of the FTSEurofirst 300 Eurozone index

TOKYO

ACTIVE STOCKS	stock traded m's	close price	Day's change
Softbank .	2479.4	6068.00	-885.00
Tokyo Electron	935.6	45400.00	1030.00
Nintendo Co.,	539.1	5659.00	-100.00
Fast Retailing Co.,	519.8	83450.00	1260.00
Keyence	464.4	60340.00	-370.00
Toyota Motor	419.7	1986.00	-15.00
Mitsubishi Ufj Fin,.	408.9	703.30	-7.50
Shiseido ,	363.7	5933.00	295.00
Shin-etsu Chemical Co.,	338.7	17320.00	275.00
Nippon Telegraph And Telephone	337.6	3780.00	-94.00
BIGGEST MOVERS	**Close price**	**Day's change**	**Day's chng%**
Ups			
Toto	4745.00	270.00	6.03
Shiseido ,	5933.00	295.00	5.23
M3,.	4760.00	193.00	4.23
Ntt Data	2078.00	51.00	2.52
Tokyo Electron	45400.00	1030.00	2.32
Downs			
Dowa Holdings Co.,	4225.00	-700.00	-14.21
Softbank .	6068.00	-885.00	-12.73
Olympus	2758.50	-334.50	-10.81
Dai Nippon Printing Co.,	2655.00	-248.00	-8.54
Fujikura	1032.00	-78.00	-7.03

Based on the constituents of the Nikkei 225 index

UK MARKET WINNERS AND LOSERS

FTSE 100	Nov 14 price(p)	%Chg week	%Chg ytd
Winners			
Ocado	925.60	37.3	-
Hargreaves Lansdown	931.40	15.9	-
Schroders	465.00	14.6	-
Jd Sports Fashion	119.60	14.6	-
Fresnillo	879.40	13.6	0.2
B&m Eur Value Retail S.a.	403.30	13.0	-
Dechra Pharmaceuticals	2930.00	12.9	-
Halma	2419.00	12.1	-
Frasers	789.50	11.8	0.3
Anglo American	3319.00	11.5	10.0
St. James's Place	1197.50	10.9	-
Antofagasta	1412.50	10.9	5.7
Losers			
Harbour Energy	342.60	-15.9	-1.9
Dcc	4487.00	-9.2	-26.0
Bae Systems	726.20	-7.9	32.8
Shell	2358.00	-5.7	45.2
Imperial Brands	2038.00	-4.5	25.6
Bp	480.50	-4.2	44.5
Glencore	512.00	-3.8	35.1
British American Tobacco	3255.50	-3.3	19.3
Flutter Entertainment	11430.00	-3.3	-1.7
Compass	1822.50	-2.6	10.8
Relx	2248.00	-1.4	-6.6
Airtel Africa	119.00	-1.4	-9.9

FTSE 250	Nov 14 price(p)	%Chg week	%Chg ytd
Winners			
Ferrexpo	148.60	29.7	-
Moonpig	180.30	26.4	-51.8
Liontrust Asset Management	1204.00	26.3	-45.1
Currys	85.00	24.4	-
Asos	793.00	22.6	-
Synthomer	154.80	20.6	-
Molten Ventures	471.20	20.1	-
Auction Technology	960.00	20.0	-
Carnival	809.40	19.6	-
Wizz Air Holdings	2367.00	19.3	-
Ashmore	249.40	19.1	-
Domino's Pizza	285.00	18.5	-
Losers			
Hilton Food	567.00	-10.6	-
Firstgroup	95.20	-10.2	-7.5
Warehouse Reit	116.20	-5.8	-
Energean	1481.00	-5.6	70.7
W.a.g Payment Solutions	77.80	-4.5	-
Man	212.30	-3.9	-6.0
Nb Private Equity Partners	1580.00	-3.7	-
Qinetiq	345.20	-3.5	29.5
Balanced Commercial Property Trust	90.40	-3.4	-
Home Reit	82.00	-3.0	-
Target Healthcare Reit	84.90	-2.7	-
Capricorn Energy	247.80	-2.2	34.0

FTSE SmallCap	Nov 14 price(p)	%Chg week	%Chg ytd
Winners			
Hochschild Mining	69.75	24.7	-
Superdry	120.40	16.9	-
Rank	70.00	16.3	-
Saga	103.30	15.5	-
Trustpilot	111.60	15.0	-
Pod Point Holdings	72.40	14.9	-
Majedie Investments	193.25	14.7	-
Ao World	56.00	13.9	-
Baillie Gifford Eur Growth Trust	95.00	13.1	-
Xp Power	2150.00	12.3	-59.1
On The Beach	120.00	12.1	-
Carr's	114.00	12.0	-
Losers			
The Gym	99.40	-16.6	-61.2
Enquest	26.55	-10.5	42.7
Dignity	399.00	-9.7	-
Petra Diamonds	99.50	-9.5	39.2
Esken	5.55	-7.1	-
Nanoco	33.50	-6.9	74.0
Galliford Try Holdings	154.60	-6.6	-
Blackrock Latin American Investment Trust	386.00	-6.5	14.6
Gcp Asset Backed ome Fund	79.00	-5.5	-18.6
Pphe Hotel	1235.00	-5.0	-
Abrdn Eur Logistics ome	73.40	-4.9	-
Taylor Maritime Investments	93.00	-4.1	-6.5

Industry Sectors	Nov 14 price(p)	%Chg week	%Chg ytd
Winners			
Mining	10786.07	11.3	-
Electronic & Electrical Equip.	9617.60	10.3	-
Real Estate & Investment Servic	2253.45	8.4	-
Personal Goods	33351.73	8.3	-7.2
Chemicals	12341.57	8.1	-
Automobiles & Parts	1461.33	7.9	-59.8
Industrial Engineering	15063.22	7.6	-19.1
Industrial Transportation	3691.16	6.8	-
Gas Water & Multiutilities index	5699.88	6.8	-4.1
Software & Computer Services	1877.98	6.5	-
Real Estate Investment Trusts	2379.39	6.3	-
Life Insurance	6585.55	6.0	-
Losers			
Oil & Gas Producers	8259.94	-5.7	44.3
Aerospace & Defense	4564.78	-4.6	9.5
Tobacco	35303.45	-3.6	20.6
General Retailers	3197.15	-3.3	10.2
Beverages	27922.48	-0.2	-
Banks	3104.64	0.7	2.1
Health Care Equip.& Services	10834.54	0.8	31.3
Food & Drug Retailers	4067.62	0.9	-7.1
Media	9082.16	1.4	-7.1
Pharmaceuticals & Biotech.	20161.25	1.6	7.4
Nonlife Insurance	3180.49	1.9	-3.2
Mobile Telecommunications	2539.60	1.9	-

Based on last week's performance. †Price at suspension.

CURRENCIES

Nov 14	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Argentina	Argentine Peso	161.7655	1.0396	167.1287	1.1547	189.7988	0.5113
Australia	Australian Dollar	1.4900	-0.0027	1.5394	-0.0020	1.7482	-0.0097
Bahrain	Bahrainin Dinar	0.3770	0.0001	0.3894	0.0002	0.4423	-0.0016
Bolivia	Bolivian Boliviano	6.9100	-	7.1391	0.0035	8.1075	-0.0305
Brazil	Brazilian Real	5.3182	0.0494	5.4946	0.0536	6.2399	0.0347
Canada	Canadian Dollar	1.3272	0.0006	1.3712	0.0013	1.5571	-0.0051
Chile	Chilean Peso	897.6500	9.1000	927.4106	9.8473	1053.2091	6.7604
China	Chinese Yuan	7.0390	-0.0755	7.2724	-0.0744	8.2589	-0.1199
Colombia	Colombian Peso	4809.5000	6.5800	4968.9540	9.2048	5642.9683	-13.4507
Costa Rica	Costa Rican Colon	610.8000	-1.0000	631.0504	-0.7264	716.6491	-3.8701
Czech Republic	Czech Koruna	23.5170	-0.0021	24.2966	0.0096	27.5923	-0.1062
Denmark	Danish Krone	7.1996	-0.0042	7.4383	-0.0007	8.4473	-0.0367
Egypt	Egyptian Pound	24.4585	0.0330	25.2694	0.0463	28.6971	-0.0689
Hong Kong	Hong Kong Dollar	7.8361	-0.0004	8.0959	0.0035	9.1941	-0.0350
Hungary	Hungarian Forint	397.3286	5.4969	410.5016	5.8756	466.1840	4.7223
India	Indian Rupee	81.2575	0.4475	83.9515	0.5029	95.3391	0.1688
Indonesia	Indonesian Rupiah	15517.5000	22.5000	16031.9870	31.0142	18206.6454	-41.8961
Israel	Israeli Shekel	3.4326	0.0167	3.5464	0.0189	4.0274	0.0045
Japan	Japanese Yen	140.4150	1.3500	145.0703	1.4645	164.7483	0.9710
..One Month		140.4145	1.3491	145.0701	1.4641	164.7479	0.9701
..Three Month		140.4132	1.3465	145.0696	1.4630	164.7468	0.9679
..One Year		140.4078	1.3358	145.0663	1.4566	164.7479	0.9634
Kenya	Kenyan Shilling	121.9000	-	125.9415	0.0611	143.0248	-0.5373
Kuwait	Kuwaiti Dinar	0.3080	0.0009	0.3182	0.0011	0.3613	-0.0003
Malaysia	Malaysian Ringgit	4.5963	-0.0313	4.7486	-0.0300	5.3928	-0.0571
Mexico	Mexican Peso	19.3995	-0.1253	20.0427	-0.1196	22.7614	-0.2330
New Zealand	New Zealand Dollar	1.6373	-0.0004	1.6916	0.0004	1.9211	-0.0077
Nigeria	Nigerian Naira	443.7500	1.2500	458.4621	1.5133	520.6500	-0.4839
Norway	Norwegian Krone	10.0050	0.0870	10.3367	0.0949	11.7388	0.0584
Pakistan	Pakistani Rupee	221.5600	0.1600	228.9056	0.2763	259.9554	-0.7882
Peru	Peruvian Nuevo Sol	3.8655	0.0098	3.9937	0.0121	4.5354	-0.0055
Philippines	Philippine Peso	57.2750	0.0075	59.1739	0.0365	67.2005	-0.2436
Poland	Polish Zloty	4.5616	0.0275	4.7128	0.0307	5.3520	0.0123
Romania	Romanian Leu	4.7447	0.0055	4.9021	0.0081	5.5670	-0.0144
Russia	Russian Ruble	61.0250	0.3500	63.0482	0.3920	71.6004	0.1432
Saudi Arabia	Saudi Riyal	3.7586	-0.0023	3.8832	-0.0005	4.4099	-0.0193
Singapore	Singapore Dollar	1.3727	-0.0009	1.4182	-0.0002	1.6106	-0.0071
South Africa	South African Rand	17.2819	0.0182	17.8549	0.0274	20.2768	-0.0548
South Korea	South Korean Won	1325.9000	7.4500	1369.8589	8.3581	1555.6730	2.9294
Sweden	Swedish Krona	10.4692	0.0877	10.8163	0.0958	12.2835	0.0571
Switzerland	Swiss Franc	0.9457	-0.0002	0.9771	0.0003	1.1096	-0.0043
Taiwan	New Taiwan Dollar	31.0710	-0.2940	32.1011	-0.2880	36.4555	-0.4832
Thailand	Thai Baht	35.9125	0.0075	37.1031	0.0258	42.1360	-0.1495
Tunisia	Tunisian Dinar	3.2161	-0.0015	3.3227	0.0001	3.7734	-0.0159
Turkey	Turkish Lira	18.6060	0.0777	19.2229	0.0896	21.8303	0.0095
United Arab Emirates	UAE Dirham	3.6730	-	3.7948	0.0018	4.3095	-0.0162
United Kingdom	Pound Sterling	0.8523	0.0032	0.8806	0.0037	-	-
..One Month		0.8524	0.0032	0.8804	0.0037	-	-
..Three Month		0.8527	0.0032	0.8802	0.0037	-	-
..One Year		0.8532	0.0032	0.8791	0.0037	-	-
United States	United States Dollar	-	-	1.0332	0.0005	1.1733	-0.0044
..One Month		-	-	1.0329	-0.1446	1.1734	-0.0044
..Three Month		-	-	1.0324	-0.1446	1.1737	-0.0044
..One Year		-	-	1.0306	-0.1446	1.1742	-0.0044
Vietnam	Vietnamese Dong	24745.0000	-70.0000	25565.4437	-59.8782	29033.2227	-191.5037
European Union	Euro	0.9679	-0.0005	-	-	1.1356	-0.0048
..One Month		0.9677	-0.0005	-	-	1.1355	-0.0048
..Three Month		0.9671	-0.0005	-	-	1.1353	-0.0048
..One Year		0.9653	-0.0005	-	-	1.1342	-0.0048

Rates are derived from WM Reuters Spot Rates and MorningStar (latest rates at time of production). Some values are rounded. Currency redenominated by 1000. The exchange rates printed in this table are also available at www.FT.com/marketsdata

FTSE ACTUARIES SHARE INDICES
UK SERIES www.ft.com/equities

Produced in conjunction with the Institute and Faculty of Actuaries

	£ Strlg Nov 14	Day's chge%	Euro Index	£ Strlg Nov 11	£ Strlg Nov 10	Year ago	Div yield%	Cover	P/E ratio	X/D adj	Total Return
FTSE 100 (100)	7385.17	0.92	6527.18	7318.04	7375.34	7347.91	3.69	1.64	16.47	248.91	7564.49
FTSE 250 (250)	19622.25	0.03	17342.60	19616.21	19377.24	23557.52	3.04	0.92	35.55	493.01	16286.80
FTSE 250 ex Inv Co (174)	20140.49	0.07	17800.63	20126.06	19872.23	24421.99	3.14	1.47	21.71	528.11	17061.03
FTSE 350 (350)	4106.80	0.78	3629.68	4074.95	4094.38	4213.89	3.60	1.55	17.93	133.01	8347.39
FTSE 350 ex Investment Trusts (271)	4038.70	0.84	3569.49	4005.24	4028.08	4102.24	3.66	1.71	15.95	133.46	4242.60
FTSE 350 Higher Yield (131)	3518.00	0.81	3109.29	3489.68	3492.51	3282.79	5.09	1.78	11.03	150.01	8054.78
FTSE 350 Lower Yield (219)	4281.23	0.75	3783.85	4249.33	4286.91	4921.14	2.05	0.96	50.53	89.16	5268.05
FTSE SmallCap (237)	6211.82	0.33	5490.15	6191.42	6137.13	7518.77	3.44	0.49	59.78	191.19	10426.66
FTSE SmallCap ex Inv Co (126)	4965.24	0.37	4388.39	4946.93	4899.32	6273.13	3.63	2.41	11.43	144.72	8659.90
FTSE All-Share (587)	4067.93	0.77	3595.33	4036.84	4054.69	4194.89	3.59	1.52	18.26	131.55	8349.56
FTSE All-Share ex Inv Co (397)	3965.59	0.83	3504.88	3932.99	3954.59	4041.98	3.66	1.72	15.86	130.82	4229.57
FTSE All-Share ex Multinationals (524)	1095.40	0.15	804.42	1093.80	1084.17	1351.15	3.83	1.05	24.76	36.31	2325.22
FTSE Fledgling (82)	11538.22	0.11	10197.74	11524.98	11407.34	13570.02	3.72	4.73	5.69	331.42	24945.63
FTSE Fledgling ex Inv Co (32)	14974.47	0.00	13234.79	14973.76	14942.66	18416.75	3.43	7.95	3.67	432.38	31448.59
FTSE All-Small (319)	4331.31	0.32	3828.11	4317.59	4279.39	5234.55	3.46	0.73	39.38	132.87	9324.70
FTSE All-Small ex Inv Co (158)	3735.44	0.36	3301.47	3722.17	3687.38	4714.87	3.62	2.60	10.61	108.85	8251.25
FTSE AIM All-Share (759)	851.55	-0.38	752.62	854.84	841.57	1252.71	1.60	1.52	41.04	11.82	999.33
FTSE All-Share Technology (21)	2010.55	-0.09	1623.86	2012.33	1983.74	2329.00	1.89	0.80	65.84	38.02	2909.92
FTSE All-Share Telecommunications (6)	1647.46	1.13	1330.60	1629.05	1652.45	1863.74	6.37	1.18	13.25	58.51	2453.10
FTSE All-Share Health Care (14)	14058.24	2.41	11354.36	13727.48	14368.72	13324.49	2.83	0.99	35.71	343.37	12991.73
FTSE All-Share Financials (254)	4504.84	0.24	3638.40	4494.19	4445.20	4995.30	3.74	1.13	23.76	159.03	5005.86
FTSE All-Share Real Estate (55)	866.26	-1.16	731.92	876.40	875.25	1193.85	4.00	4.49	5.57	28.87	908.49
FTSE All-Share Consumer Discretionary (84)	4578.01	0.69	3697.50	4546.84	4573.96	5541.05	2.35	1.05	40.62	101.72	4849.85
FTSE All-Share Consumer Staples (24)	19246.41	1.93	15544.68	18882.14	19357.82	19274.85	3.96	1.16	21.85	617.01	17579.23
FTSE All-Share Industrials (84)	6317.36	0.12	5102.32	6309.49	6382.91	7444.89	2.26	1.36	32.46	131.14	7308.32
FTSE All-Share Basic Materials (22)	8940.23	0.51	7220.73	8894.97	8623.26	7941.47	6.08	2.01	8.18	536.92	12185.18
FTSE All-Share Energy (13)	8544.55	-0.04	6901.14	8547.59	8389.27	6057.82	3.52	2.74	10.36	301.53	10395.15
FTSE All-Share Utilities (10)	8400.12	1.23	6784.50	8297.68	8463.29	8319.64	4.54	0.68	32.41	293.03	12690.35
FTSE All-Share Software and Computer Services (18)	2167.60	-0.14	1750.70	2170.75	2142.49	2500.69	1.90	0.80	65.89	41.24	3319.28
FTSE All-Share Technology Hardware and Equipment (3)	5206.53	1.33	4205.14	5138.25	4911.78	6783.70	1.70	0.91	64.62	78.21	6729.00
FTSE All-Share Telecommunications Equipment (1)	616.52	0.07	497.94	616.07	615.18	671.52	1.99	2.31	21.72	11.51	881.26
FTSE All-Share Telecommunications Service Providers (5)	2535.76	1.18	2048.04	2506.27	2544.00	2870.53	6.56	1.17	13.03	91.72	3437.00
FTSE All-Share Health Care Providers (3)	10933.17	0.19	8830.36	10912.72	10927.33	8662.74	0.53	4.48	41.88	58.27	10147.75
FTSE All-Share Medical Equipment and Services (2)	5361.59	0.49	4330.38	5335.33	5378.92	6258.30	2.66	0.97	38.91	142.76	5179.10
FTSE All-Share Pharmaceuticals and Biotechnology (9)	20099.83	2.54	16233.96	19601.83	20569.32	18851.17	2.86	0.98	35.49	492.51	16723.38
FTSE All-Share Banks (12)	3063.38	1.21	2474.19	3026.74	3024.24	2994.19	4.25	2.61	9.03	128.47	2710.96
FTSE All-Share Finance and Credit Services (8)	10911.87	-2.25	8813.15	11163.08	10953.81	9929.23	1.91	2.05	25.49	208.86	14661.68
FTSE All-Share Investment Banking and Brokerage Services (31)	8751.16	-0.72	7068.02	8814.98	8604.68	10942.16	5.04	1.72	11.56	387.97	12290.59
FTSE All-Share Closed End Investments (190)	11958.80	-0.08	9658.72	11967.91	11836.74	14528.77	2.61	-2.50	-15.36	270.41	7474.35
FTSE All-Share Life Insurance (6)	6700.86	-0.23	5412.06	6716.44	6475.53	8419.34	4.57	1.08	20.23	294.59	8200.16
FTSE All-Share Nonlife Insurance (7)	3574.15	2.07	2886.72	3501.70	3581.83	3537.48	4.04	1.24	19.99	130.27	7611.65
FTSE All-Share Real Estate Investment and Services (10)	2155.54	-0.32	1740.96	2162.37	2129.92	3024.42	2.34	3.76	11.38	41.03	6427.43
FTSE All-Share Real Estate Investment Trusts (45)	2158.99	-1.31	1743.74	2187.54	2189.95	2957.54	4.29	4.56	5.11	78.21	3261.91
FTSE All-Share Automobiles and Parts (2)	1468.82	-6.87	1186.31	1577.25	1494.37	4077.69	0.66	-53.35	-2.83	14.02	1528.07
FTSE All-Share Consumer Services (2)	3002.65	1.89	2425.14	2946.86	3093.97	2566.51	1.28	1.71	45.70	38.43	3808.85
FTSE All-Share Household Goods and Home Construction (12)	8634.44	-0.88	6973.75	8711.21	8717.45	14037.90	8.62	1.60	7.24	665.58	7728.56
FTSE All-Share Leisure Goods (2)	20292.50	1.51	16389.57	19991.14	19029.01	24571.31	3.33	1.59	18.85	831.45	22678.49
FTSE All-Share Personal Goods (4)	28696.12	1.01	23176.89	28409.82	27875.52	31136.34	1.80	2.81	19.71	402.68	22444.82
FTSE All-Share Media (11)	9328.32	1.45	7534.17	9194.89	9484.35	10083.19	2.38	1.45	28.99	221.42	6563.43
FTSE All-Share Retailers (22)	1933.67	1.15	1561.76	1911.70	1849.19	2831.40	2.62	3.64	10.47	45.23	2511.45
FTSE All-Share Travel and Leisure (29)	6399.51	-0.40	5168.67	6424.91	6336.51	8050.23	0.63	-9.71	-16.40	40.16	6618.29
FTSE All-Share Beverages (5)	28023.39	1.03	22633.55	27737.71	28473.84	29750.07	2.14	1.99	23.48	584.47	22458.43
FTSE All-Share Food Producers (10)	5773.41	0.07	4662.99	5769.61	5778.77	6934.74	2.56	2.34	16.71	85.60	5560.45
FTSE All-Share Tobacco (2)	35303.51	2.17	28513.46	34554.82	36025.90	28063.00	6.71	0.92	16.15	1728.22	32996.25
FTSE All-Share Construction and Materials (15)	7359.90	-0.20	5944.34	7374.31	7245.37	8793.62	3.13	0.64	49.71	227.86	8977.24
FTSE All-Share Aerospace and Defense (7)	4806.06	1.96	3881.69	4713.80	4971.33	4675.82	2.45	0.15	275.36	104.10	5861.91
FTSE All-Share Electronic and Electrical Equipment (10)	11292.48	1.16	9120.55	11163.46	11111.60	14460.26	1.55	1.98	32.51	159.06	11166.25
FTSE All-Share General Industrials (8)	5061.61	0.31	4088.09	5045.88	5082.59	5692.26	2.82	1.17	30.48	134.98	6676.21
FTSE All-Share Industrial Engineering (5)	16632.87	-0.13	13433.81	16654.60	16738.79	21382.24	1.57	2.01	31.67	261.52	22342.45
FTSE All-Share Industrial Support Services (31)	9879.63	-0.60	7979.44	9939.04	10073.94	12139.28	1.92	1.69	30.74	182.30	11362.67
FTSE All-Share Industrial Transportation (8)	5567.51	-0.68	4496.69	5605.82	5662.29	7171.46	2.10	3.42	13.97	98.14	5833.29
FTSE All-Share Industrial Materials (1)	16503.08	1.23	506.37	16303.04	16753.13	21704.05	1.99	1.81	27.74	329.06	20845.85
FTSE All-Share Industrial Metals and Mining (9)	8012.29	0.55	6471.26	7968.40	7700.54	6491.98	6.52	2.01	7.63	517.27	12298.66
FTSE All-Share Precious Metals and Mining (5)	10229.35	1.48	8261.90	10080.14	10046.94	21767.79	3.50	1.83	15.65	358.99	7212.04
FTSE All-Share Chemicals (7)	13642.73	-0.27	11018.77	13679.74	13542.87	18746.87	2.61	2.11	18.21	324.25	13673.36
FTSE All-Share Oil. Gas and Coal (12)	8294.71	-0.04	6699.36	8297.72	8143.98	5879.05	3.52	2.74	10.36	292.72	10465.46
FTSE Sector Indices											
Non Financials (333)	**4980.95**	**0.92**	**4402.28**	**4935.45**	**4978.81**	**5028.46**	**3.55**	**1.64**	**17.14**	**156.96**	**8992.97**

Hourly movements	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	High/day	Low/day
FTSE 100	7290.32	7275.83	7281.22	7289.30	7287.19	7289.00	7289.21	7283.79	7282.20	7307.53	7263.74
FTSE 250	18676.96	18591.87	18558.72	18588.62	18612.05	18588.53	18577.91	18565.63	18621.43	18687.66	18545.07
FTSE SmallCap	6016.39	6007.28	6002.83	6004.18	6009.71	6005.22	6001.15	5998.02	6001.62	6016.39	5997.90
FTSE All-Share	3992.48	3983.13	3984.49	3989.10	3988.96	3988.98	3988.69	3985.87	3986.83	3999.36	3976.58

Time of FTSE 100 Day's high:15:23:00 Day's Low09:19:45 FTSE 100 2010/11 High: 7672.40(10/02/2022) Low: 6826.15(12/10/2022)
Time of FTSE All-Share Day's high:15:23:00 Day's Low09:21:00 FTSE 100 2010/11 High: 4296.96(10/02/2022) Low: 3712.50(12/10/2022)

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FT 30 INDEX

	Nov 14	Nov 11	Nov 10	Nov 09	Nov 08	Yr Ago	High	Low
FT 30	2512.20	2488.80	2489.50	2428.20	2440.20	0.00	2880.10	2152.10
FT 30 Div Yield	-	-	-	-	-	0.00	3.93	2.74
P/E Ratio net	-	-	-	-	-	0.00	19.44	14.26

FT 30 hourly changes

8	9	10	11	12	13	14	15	16	High	Low
2488.8	2484.9	2485.8	2488	2482.9	2490.2	2503.3	2509.5	2512.8	2518.6	2476.2

FT30 constituents and recent additions/deletions can be found at www.ft.com/ft30

FT WILSHIRE 5000 INDEX SERIES

	Nov 11		Nov 11
FT Wilshire 5000	40630.30	FT Wilshire Mid Cap	5534.65
FT Wilshire 2500	5201.26	FT Wilshire Small Cap	5013.72
FT Wilshire Mega Cap	5162.16	FT Wilshire Micro Cap	4910.90
FT Wilshire Large Cap	5224.15		

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FTSE GLOBAL EQUITY INDEX SERIES

Nov 14 Regions & countries	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
FTSE Global All Cap	9521	695.11	1.8	12.0	-17.9	1112.79	-16.3	2.3
FTSE Global All Cap	9521	695.11	1.8	12.0	-17.9	1112.79	-16.3	2.3
FTSE Global Large Cap	1907	619.72	1.9	11.7	-18.4	1022.64	-16.7	2.3
FTSE Global Mid Cap	2264	905.48	1.7	13.5	-15.6	1363.56	-14.0	2.2
FTSE Global Small Cap	5350	934.50	1.7	12.0	-18.3	1345.71	-16.9	2.1
FTSE All-World	4171	408.02	1.8	12.1	-17.9	691.74	-16.2	2.3
FTSE World	2664	742.07	1.7	12.6	-17.4	1688.18	-15.7	2.3
FTSE Global All Cap ex UNITED KINGDOM In	9230	735.04	1.9	12.0	-18.0	1154.12	-16.5	2.2
FTSE Global All Cap ex USA	7710	484.12	3.1	13.3	-19.3	859.97	-16.9	3.3
FTSE Global All Cap ex JAPAN	8116	725.67	1.7	12.1	-17.9	1171.91	-16.3	2.3
FTSE Global All Cap ex Eurozone	8857	736.91	1.8	11.3	-17.6	1153.98	-16.1	2.2
FTSE Developed	2180	681.99	1.6	12.8	-17.3	1099.12	-15.8	2.1
FTSE Developed All Cap	5829	711.60	1.6	12.7	-17.4	1129.90	-15.9	2.1
FTSE Developed Large Cap	834	638.07	1.5	12.5	-17.7	1046.71	-16.2	2.2
FTSE Developed Europe Large Cap	220	370.90	1.4	17.4	-17.5	734.43	-15.0	3.2
FTSE Developed Europe Mid Cap	355	568.24	2.4	23.3	-26.3	976.38	-24.3	3.0
FTSE Dev Europe Small Cap	747	802.68	2.5	23.4	-27.3	1325.09	-25.3	3.1
FTSE North America Large Cap	234	856.99	1.0	11.1	-17.8	1286.21	-16.7	1.7
FTSE North America Mid Cap	423	1138.51	1.2	12.6	-12.9	1579.82	-11.6	1.8
FTSE North America Small Cap	1334	1124.18	1.1	11.1	-14.8	1495.65	-13.7	1.6
FTSE North America	657	562.95	1.0	11.4	-16.9	863.77	-15.8	1.7
FTSE Developed ex North America	1523	257.56	2.8	15.9	-18.3	492.82	-15.9	3.1
FTSE Japan Large Cap	169	371.87	4.3	12.0	-18.4	546.64	-16.4	2.5
FTSE Japan Mid Cap	340	514.98	3.1	7.2	-16.1	718.86	-14.0	2.6
FTSE Global wi JAPAN Small Cap	896	573.78	2.9	8.2	-17.5	831.57	-15.3	2.8
FTSE Japan	509	152.58	4.1	11.0	-18.0	251.13	-15.9	2.5
FTSE Asia Pacific Large Cap ex Japan	1088	647.63	5.8	9.3	-22.3	1179.68	-20.1	3.3
FTSE Asia Pacific Mid Cap ex Japan	868	930.57	4.4	11.1	-17.9	1634.27	-15.5	3.5
FTSE Asia Pacific Small Cap ex Japan	2114	526.00	3.8	9.5	-27.7	897.63	-25.8	3.1
FTSE Asia Pacific Ex Japan	1956	516.34	5.7	9.5	-21.9	999.57	-19.7	3.3
FTSE Emerging All Cap	3692	682.40	4.3	6.0	-22.5	1188.64	-20.0	3.8
FTSE Emerging Large Cap	1073	627.36	4.8	5.8	-23.8	1098.81	-21.3	3.8
FTSE Emerging Mid Cap	918	1005.60	2.4	8.3	-12.5	1763.13	-9.5	4.0
FTSE Emerging Small Cap	1701	740.61	2.3	5.5	-23.6	1235.34	-21.1	3.4
FTSE Emerging Europe	111	113.10	0.4	21.7	-72.7	236.47	-71.6	3.0
FTSE Latin America All Cap	262	735.46	2.2	2.2	3.7	1439.27	11.4	10.9
FTSE Middle East and Africa All Cap	331	768.25	0.8	5.9	-3.6	1406.70	-0.7	3.2
FTSE Global wi UNITED KINGDOM All Cap In	291	303.83	0.2	14.1	-15.6	620.47	-12.7	3.7
FTSE Global wi USA All Cap	1811	967.32	1.0	11.2	-17.0	1399.45	-15.9	1.6
FTSE Europe All Cap	1462	422.13	1.6	18.8	-21.1	802.41	-18.8	3.2
FTSE Eurozone All Cap	664	408.44	2.1	21.7	-21.2	770.48	-18.9	3.1
FTSE EDHEC-Risk Efficient All-World	4171	468.53	1.5	12.6	-14.2	737.01	-12.3	2.7
FTSE EDHEC-Risk Efficient Developed Europe	575	310.87	2.1	20.8	-24.7	546.37	-22.6	3.2
Oil & Gas	131	427.80	2.6	15.1	30.5	873.32	36.1	4.4
Oil & Gas Producers	87	426.95	2.9	14.2	34.4	894.94	40.6	4.7

Nov 14 Sectors	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
Oil Equipment & Services	24	290.89	1.7	18.5	24.3	537.43	28.8	4.0
Basic Materials	394	601.92	3.2	15.1	-10.5	1107.56	-6.8	4.8
Chemicals	196	814.15	2.5	15.1	-15.9	1438.99	-13.7	3.0
Forestry & Paper	20	259.39	2.1	11.3	-15.0	522.58	-12.4	3.8
Industrial Metals & Mining	98	490.96	4.9	17.3	-11.3	939.00	-6.7	7.6
Mining	80	936.39	3.6	14.2	0.6	1824.91	6.7	6.1
Industrials	803	497.62	1.7	16.2	-17.2	793.44	-15.6	2.0
Construction & Materials	154	572.13	2.7	15.9	-22.6	962.35	-21.0	2.2
Aerospace & Defense	35	856.30	-3.2	12.1	6.6	1334.54	8.0	1.5
General Industrials	76	239.85	1.5	19.8	-13.6	423.64	-11.5	2.5
Electronic & Electrical Equipment	157	631.91	3.4	18.9	-21.4	908.03	-20.2	1.5
Industrial Engineering	158	999.59	2.5	20.9	-13.6	1588.50	-11.9	1.9
Industrial Transportation	133	920.62	2.5	14.8	-17.1	1496.65	-14.6	3.4
Support Services	90	531.00	1.4	11.7	-25.3	789.95	-24.3	1.5
Consumer Goods	569	548.42	2.0	8.9	-20.4	921.34	-18.9	2.4
Automobiles & Parts	132	522.57	3.4	5.8	-32.4	844.85	-31.4	1.9
Beverages	72	752.81	0.2	8.5	-6.6	1276.71	-4.9	2.3
Food Producers	134	706.46	0.1	7.0	-10.0	1217.10	-8.1	2.5
Household Goods & Home Construction	65	511.58	1.0	12.0	-21.8	862.29	-19.8	2.8
Leisure Goods	53	236.95	4.5	9.6	-25.6	335.05	-24.7	1.4
Personal Goods	98	886.41	4.0	14.4	-23.2	1362.76	-22.0	1.9
Tobacco	15	952.35	-0.2	7.1	-0.9	2692.37	3.5	6.3
Health Care	343	709.26	-0.6	9.2	-10.2	1129.71	-8.7	1.8
Health Care Equipment & Services	133	1366.67	0.1	8.8	-17.8	1675.84	-17.2	1.0
Pharmaceuticals & Biotechnology	210	476.34	-1.1	9.5	-4.2	815.65	-2.1	2.3
Consumer Services	427	529.34	2.6	7.6	-24.9	755.44	-24.1	1.2
Food & Drug Retailers	69	314.38	0.1	10.8	-8.7	499.65	-6.7	2.4
General Retailers	141	932.91	3.1	3.5	-27.0	1274.07	-26.5	1.0
Media	75	296.77	3.8	13.5	-36.8	426.52	-36.1	1.3
Travel & Leisure	142	446.60	1.7	13.2	-12.9	651.69	-12.1	1.1
Telecommunication	89	132.30	0.5	11.9	-10.8	311.48	-7.4	4.2
Fixed Line Telecommuniations	31	102.59	0.7	14.2	-9.0	277.57	-4.8	5.1
Mobile Telecommunications	58	156.97	0.4	10.7	-11.7	318.35	-8.8	3.7
Utilities	200	310.33	-0.3	9.1	-9.6	724.25	-7.1	3.4
Electricity	142	353.92	-0.3	8.2	-8.2	813.32	-5.8	3.3
Gas Water & Multiutilities	58	300.53	-0.3	11.5	-12.9	726.22	-10.2	3.7
Financials	853	261.78	1.7	15.1	-12.8	502.80	-10.3	3.2
Banks	270	200.03	1.4	15.0	-11.6	428.31	-8.3	4.1
Nonlife Insurance	71	351.71	-0.2	12.8	0.4	586.86	3.2	2.9
Life Insurance	51	213.23	3.8	13.5	-11.8	410.47	-8.5	4.0
Financial Services	211	439.17	2.2	18.1	-12.0	666.57	-10.6	1.7
Technology	362	468.71	3.1	11.7	-30.9	611.50	-30.3	1.1
Software & Computer Services	186	698.95	3.0	7.6	-34.7	845.02	-34.3	0.7
Technology Hardware & Equipment	176	420.90	3.2	16.3	-26.6	591.08	-25.6	1.5
Alternative Energy	20	186.04	-0.7	20.0	-10.7	266.95	-10.4	0.4
Real Estate Investment & Services	142	247.95	4.9	8.2	-24.6	482.97	-22.5	3.2
Real Estate Investment Trusts	108	450.32	0.8	13.1	-24.5	1051.37	-22.4	3.8
FTSE Global Large Cap	1907	619.72	1.9	11.7	-18.4	1022.64	-16.7	2.3

The FTSE Global Equity Series, launched in 2003, contains the FTSE Global Small Cap Indices and broader FTSE Global All Cap Indices (large/mid/small cap) as well as the enhanced FTSE All-World index Series (large/mid cap) - please see https://research.ftserussell.com/Products/indices/Home/indexfiltergeis?indexName=GEISAC&currency=USD&rtn=CAP&segment=global-developed--emerging. The trade names Fundamental Index® and RAFI® are registered trademarks and the patented and patent-pending proprietary intellectual property of Research Affiliates, LLC (US Patent Nos. 7,620,577; 7,747,502; 7,778,905; 7,792,719; Patent Pending Publ. Nos. US-2006-0149645-A1, US-2007-0055598-A1, US-2008-0288416-A1, US-2010- 0063942-A1, WO 2005/076812, WO 2007/078399 A2, WO 2008/118372, EPN 1733352, and HK1099110). "EDHEC™" is a trade mark of EDHEC Business School As of January 2nd 2006, FTSE is basing its sector indices on the Industrial Classification Benchmark - please see www.ftse.com/icb. For constituent changes and other information about FTSE, please see www.ftse.com. © FTSE International Limited. 2013. All Rights reserved. "FTSE®" is a trade mark of the London Stock Exchange Group companies and is used by FTSE International Limited under licence.

FTSE SECTORS: LEADERS & LAGGARDS

Year to date percentage changes

Oil & Gas Producers	44.61	Gas Water & Multi	-4.28	FTSE 250 Index	-16.43
Oil & Gas	44.06	Consumer Goods	-4.90	Food Producers	-16.49
Tobacco	20.53	Health Care Eq & Srv	-5.55	FTSE SmallCap Index	-16.73
Mining	16.45	Travel & Leisure	-8.25	Support Services	-18.29
Basic Materials	8.90	Mobile Telecomms	-8.28	Construct & Material	-18.35
Aerospace & Defense	8.80	Media	-9.11	Industrial Eng	-18.96
Pharmace & Biotech	7.45	Tech Hardware & Eq	-9.21	Leisure Goods	-20.08
Health Care	6.56	Nonlife Insurance	-9.44	Fixed Line Telecomms	-20.60
Banks	1.78	Technology	-10.02	Electronic & Elec Eq	-22.61
Personal Goods	1.08	Software & Comp Serv	-10.11	Chemicals	-25.92
FTSE 100 Index	0.01	Beverages	-10.22	Food & Drug Retailer	-26.27
Beverages	31.66	Financial Services	-10.71	Household Goods & Ho	-26.71
Electricity	-1.53	Financials	-11.56	General Retailers	-29.71
NON FINANCIALS Index	-1.79	Telecommunications	-11.76	Real Est Invest & Tr	-30.09
Oil Equipment & Serv	-2.86	Life Insurance	-13.87	Real Est Invest & Se	-32.01
FTSE All{HY-}Share Index	-3.33	Industrials	-14.74	Industrial Transport	-37.29
Utilities	-3.59	Consumer Services	-15.19	Automobiles & Parts	-59.72
		Equity Invest Instr	-16.12	Industrial Metals &	-79.01

FTSE 100 SUMMARY

FTSE 100	Closing Price	Day's Change	FTSE 100	Closing Price	Day's Change
3I Group PLC	1283.5	-14.00	International Consolidated Airlines Group S.A.	141.36	3.62
Admiral Group PLC	2120	74.00	Intertek Group PLC	4094	57.00
Airtel Africa PLC	119.00	-1.00	Jd Sports Fashion PLC	119.60	-0.90
Anglo American PLC	3319	-32.00	Kingfisher PLC	249.60	3.40
Antofagasta PLC	1412.5	-17.00	Land Securities Group PLC	623.80	-6.60
Ashtead Group PLC	5038	-50.00	Legal & General Group PLC	248.20	-1.00
Associated British Foods PLC	1562	6.00	Lloyds Banking Group PLC	43.61	0.09
Astrazeneca PLC	10868	270.00	London Stock Exchange Group PLC	8022	-198.00
Auto Trader Group PLC	573.40	-1.20	M&G PLC	190.00	0.85
Aveva Group PLC	3176	7.00	Melrose Industries PLC	127.20	0.10
Aviva PLC	440.80	2.40	Mondi PLC	1571.5	-10.50
B&M European Value Retail S.A.	403.30	17.80	National Grid PLC	1009	11.80
Bae Systems PLC	726.20	12.20	Natwest Group PLC	249.30	-0.30
Barclays PLC	157.62	-0.60	Next PLC	5778	62.00
Barratt Developments PLC	407.70	-3.50	Ocado Group PLC	925.60	113.60
Berkeley Group Holdings (The) PLC	3801	-39.00	Pearson PLC	953.20	15.40
BP PLC	480.50	2.10	Pershing Square Holdings LTD	2945	15.00
British American Tobacco PLC	3255.5	68.50	Persimmon PLC	1335	-24.00
British Land Company PLC	398.30	-4.80	Phoenix Group Holdings PLC	568.80	1.60
Bt Group PLC	124.95	5.15	Prudential PLC	994.80	-5.70
Bunzl PLC	2964	31.00	Reckitt Benckiser Group PLC	5668	112.00
Burberry Group PLC	2030	17.00	Relx PLC	2248	13.00
Centrica PLC	83.46	1.16	Rentokil Initial PLC	533.60	-8.40
Coca-Cola Hbc AG	2022	2.00	Rightmove PLC	557.40	-2.40
Compass Group PLC	1822.5	34.00	Rio Tinto PLC	5407	9.00
Convatec Group PLC	224.20	-0.40	Rolls-Royce Holdings PLC	91.60	2.29
Crh PLC	3353.5	-8.50	Rs Group PLC	954.00	-9.00
Croda International PLC	7074	14.00	Sage Group PLC	750.00	-6.00
Dcc PLC	4487	-28.00	Sainsbury (J) PLC	220.20	1.80
Dechra Pharmaceuticals PLC	2930	-38.00	Schroders PLC	465.00	-8.50
Diageo PLC	3659	40.00	Scottish Mortgage Investment Trust PLC	808.60	-9.20
Endeavour Mining PLC	1706	22.00	Segro PLC	841.60	-11.60
Entain PLC	1350	-11.00	Severn Trent PLC	2756	79.00
Experian PLC	2840	-27.00	Shell PLC	2358	-2.00
F&C Investment Trust PLC	927.00	-4.00	Smith & Nephew PLC	1064	8.00
Flutter Entertainment PLC	11430	-240.00	Smith (Ds) PLC	317.20	-1.30
Frasers Group PLC	789.50	-3.50	Smiths Group PLC	1592	13.00
Fresnillo PLC	879.40	13.20	Smurfit Kappa Group PLC	3223	13.00
Glaxosmithkline PLC	1365	41.40	Spirax-Sarco Engineering PLC	11885	20.00
Glencore PLC	512.00	10.00	Sse PLC	1632	4.50
Haleon PLC	281.85	4.35	St. James's Place PLC	1197.5	-9.50
Halma PLC	2419	62.00	Standard Chartered PLC	577.20	11.60
Harbour Energy PLC	342.60	-36.50	Taylor Wimpey PLC	103.70	-0.60
Hargreaves Lansdown PLC	931.40	-3.20	Tesco PLC	230.40	2.20
Homeserve PLC	1189	-3.00	Unilever PLC	4032.5	93.00
HSBC Holdings PLC	480.30	10.10	Unite Group PLC	948.00	-24.00
Imperial Brands PLC	2038	44.50	United Utilities Group PLC	1030	24.00
Informa PLC	584.40	31.80	Vodafone Group PLC	104.16	0.44
Intercontinental Hotels Group PLC	4759	-15.00	Whitbread PLC	2556	-29.00
Intermediate Capital Group PLC	1242.5	-47.00	Wpp PLC	878.60	11.20

UK STOCK MARKET TRADING DATA

	Nov 14	Nov 11	Nov 10	Nov 09	Nov 08	Yr Ago
Order Book Turnover (m)	410.61	95.15	95.15	99.23	372.57	553.62
Order Book Bargains	817683.00	1027018.00	1027018.00	967596.00	685690.00	650467.00
Order Book Shares Traded (m)	1300.00	2021.00	2021.00	1614.00	1077.00	1283.00
Total Equity Turnover (£m)	7561.60	5959.72	5959.72	8466.44	9215.76	7105.90
Total Mkt Bargains	1053589.00	1279254.00	1279254.00	1219137.00	882931.00	871062.00
Total Shares Traded (m)	6839.00	6195.00	6195.00	6371.00	7854.00	5807.00

† Excluding intra-market and overseas turnover. *UK only total at 6pm. ‡ UK plus intra-market turnover. (u) Unavaliable. (c) Market closed.

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UK RIGHTS OFFERS

Issue price	Amount paid up	Latest renun. date	High	Low	Stock	closing Price p	+or-

There are currently no rights offers by any companies listed on the LSE.

UK COMPANY RESULTS

Company		Turnover		Pre-tax		EPS(p)		Div(p)		Pay day	Total	
Aeorema Communications	Pre	**12.207**	5.095	**0.844**	0.160L	**6.921**	1.785L	**2.00000**	0.00000	Jan 20	**2.000**	0.000
Cake Box Holdings	Int	**16.822**	16.472	**2.030**	3.699	**3.720**	7.460	**2.62500**	2.50000	Dec 9	**7.725**	6.200
Condor Gold	3rd	**0.000**	0.000	**1.909L**	1.606L	**1.200L**	1.190L	**0.00000**	0.00000	-	**0.000**	0.000
Europa Oil & Gas (Holdings)	Pre	**6.584**	1.372	**1.388**	0.845L	**0.190**	0.150L	**0.00000**	0.00000	-	**0.000**	0.000
Kainos Group	Int	**179.775**	142.253	**27.523**	24.841	**17.700**	16.300	**7.80000**	7.10000	Dec 16	**22.900**	22.200
New Century AIM VCT	Int			**1.570L**	1.463	**19.970L**	18.610	**9.00000**	0.00000	Jul 22	**11.000**	0.000
Ondo InsurTech	Int	**1.004**	0.646	**2.057L**	1.554L	**3.300L**	4.600L	**0.00000**	0.00000	-	**0.000**	0.000
SRT Marine Systems	Int	**18.836**	4.703	**2.123**	3.128L	**1.170**	1.910L	**0.00000**	0.00000	-	**0.000**	0.000
Totally	Int	**70.300**	61.566	**1.040**	0.921	**0.480**	0.620	**0.00000**	0.50000	-	**0.500**	0.750

Figures in £m. Earnings shown basic. Figures in light text are for corresponding period year earlier.
For more information on dividend payments visit www.ft.com/marketsdata

UK RECENT EQUITY ISSUES

Issue date	Issue price(p)	Sector	Stock code	Stock	Close price(p)	+/-	High	Low	Mkt Cap (£m)
11/09	250.00		ITH	Ithaca Energy PLC	233.00	-1.90	254.90	215.05	234202.8
10/31	4.00		BWN	Bowen Fintech PLC	6.25	0.25	6.00	5.90	343.8
10/27	10.00		UMR	Unicorn Mineral Resource PLC	18.50	-1.50	19.50	10.00	513.5
10/24	1.00		ATN	Eastinco Mining and Exploration PLC	0.95	0.00	1.00	0.90	916.5
10/21	55.00	AIM	SND	Sondrel (Holdings) PLC	59.60	0.70	60.00	51.67	5212.7
10/07	10.00		ACG	ACG Acquisition Company Ltd	9.95	0.10	10.10	9.85	155.5
10/04	1.00		MII	Milton Capital PLC	1.03	-0.05	1.20	0.98	102.5

§Placing price. *Intoduction. ‡When issued. Annual report/prospectus available at www.ft.com/ir
For a full explanation of all the other symbols please refer to London Share Service notes.

MARKET DATA

FT500: THE WORLD'S LARGEST COMPANIES

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Australia (A$)							
ANZ Bank	24.27	-0.37	28.33	20.78	5.83	10.84	48702.3
BHP Group	44.01	1.92	53.72	35.70	8.76	11.01	149527.41
CmwBkAu	105.10	-0.71	108.39	86.98	3.13	21.05	119528.13
CSL	286.55	-5.74	319.78	240.10	0.99	43.70	92738.86
NatAusBk	31.26	-0.09	33.75	25.43	2.70	17.74	66167.47
Telstra	3.86	-0.14	4.20	3.62	2.43	33.44	29933.36
Wesfarmers	46.82	-1.00	61.34	40.03	3.57	25.64	35628.93
Westpac Bank	23.85	-0.23	24.67	18.80	3.49	18.48	56042.31
Woolworths	33.80	-0.49	41.13	31.67	3.00	41.06	27595.6
Belgium (€)							
AnBshInBv	53.31	-0.07	58.72	45.56	0.95	27.89	95680.01
KBC Grp	51.12	-0.80	86.50	45.53	6.42	8.72	22017.64
Brazil (R$)							
Ambev	16.06	-0.03	17.92	12.81	3.50	24.30	47562.35
Bradesco	12.92	-0.08	17.72	12.69	6.41	5.99	11832.44
Cielo	5.09	-0.02	6.22	2.01	2.85	17.26	2600.21
ItauHldFin	22.75	-0.15	26.04	18.86	3.39	9.02	21210.18
Petrobras	31.82	1.12	42.08	26.76	15.04	4.54	44529.47
Vale	83.43	1.13	107.11	61.85	15.53	3.73	74968.78
Canada (C$)							
Bausch Hlth	9.75	-0.18	36.26	5.10	-	-3.21	2658.49
BCE	62.73	0.20	74.09	55.66	5.08	23.05	43104.52
BkMontrl	132.30	-0.53	154.47	113.73	3.11	11.17	67516.37
BkNvaS	68.39	-0.29	95.00	63.19	4.94	9.39	61393.32
Brookfield	60.90	-1.16	79.04	51.07	0.98	22.16	74327.42
CanadPcR	101.65	-0.17	106.93	86.12	0.68	26.72	71241.1
CanImp	64.47	-0.28	167.50	55.35	8.48	4.90	43968.85
CanNatRs	81.46	-0.68	88.18	48.42	2.23	13.85	67965.99
CanNatRy	162.41	0.44	171.48	137.26	1.38	25.90	82864.82
Enbridge	54.19	-1.28	59.69	46.88	5.61	20.75	82677.16
GtWesLif	31.40	0.24	41.50	27.99	5.60	9.69	22046.56
ImpOil	76.00	-0.72	79.83	41.04	1.23	24.00	35018.79
Manulife	23.47	-0.06	28.09	20.81	4.54	7.28	33392.17
Nutrien	103.54	1.78	147.93	84.37	2.04	16.31	40826.33
RylBkC	131.48	-0.20	149.60	116.75	3.08	12.82	137328.25
SHOP	51.34	-1.00	222.87	33.00	-	1.95	38608.98
Suncor En	48.52	-0.25	53.62	28.77	1.97	19.25	49501.12
ThmReut	145.33	-0.40	156.62	119.23	1.28	10.99	52660.02
TntoDom	88.00	-0.44	109.08	77.27	3.38	12.10	120321.53
TrnCan	63.53	-0.49	74.44	54.60	4.99	37.53	48441.9
China (HK$)							
AgricBkCh	2.43	0.02	3.15	2.22	8.47	3.29	9532.11
Bk China	2.65	-0.02	3.20	2.51	8.10	3.39	28279.38
BkofComm	4.25	0.08	5.74	3.84	7.94	3.63	18989.03
BOE Tech	0.68	0.03	0.87	0.57	-	11.33	17.27
Ch Coms Cons	3.33	0.01	5.17	3.09	5.90	2.85	1877.68
Ch Evrbrght	2.26	0.09	3.11	2.04	10.23	3.16	3656.67
Ch Rail Cons	4.16	0.09	5.95	3.75	6.08	2.28	1102.26
Ch Rail Gp	3.86	0.10	5.88	3.48	5.14	3.21	2072.52
ChConstBk	4.56	-0.03	6.23	4.12	7.86	3.42	139903.65
China Vanke	13.84	1.00	21.70	9.96	9.93	6.44	3367.25
ChinaCitic	3.24	0.08	4.08	2.92	8.36	3.10	6153.33
ChinaLife	10.52	0.36	15.04	8.53	6.26	4.75	9989.78
ChinaMBank	35.95	2.50	70.80	25.40	3.84	6.85	21061.86
ChinaMob	48.95	-0.25	58.65	45.90	6.35	7.80	127808.46
ChinaPcIns	16.08	0.52	25.90	12.10	7.88	5.41	5695.03
ChMinsheng	2.52	0.06	3.29	2.19	9.42	3.37	2675.72
ChMrchSecs	13.25	0.14	18.56	12.06	3.26	11.96	13970.89
Chna Utd Coms	3.46	-0.01	4.08	3.30	3.20	17.56	15219.26
ChShenEgy	22.40	-0.45	27.65	15.98	8.83	7.02	9654.73
ChShpbldng	3.57	-0.02	4.36	3.36	-	-268.48	11200.24
ChStConEng	5.29	0.11	6.40	4.63	4.01	4.15	30688.6
ChUncHK	3.55	-	4.43	3.27	4.27	8.08	13861.87
CNNC Intl	6.08	-0.07	8.92	5.78	2.03	16.08	16282.03
CSR	2.85	0.06	3.80	2.37	7.01	8.09	1589.76
Daqin	6.65	0.03	7.25	5.95	7.14	10.19	14045.25
GuosenSec	9.01	0.03	11.70	8.43	2.52	10.47	11298.71
HaitongSecs	4.49	0.16	7.34	3.77	6.18	5.04	1953.65
Hngzh HikVDT	30.59	0.78	55.55	28.10	2.59	17.01	39875.27
Hunng Pwr	3.29	0.12	5.74	2.62	5.80	-3.81	1973.46
IM Baotou Stl	1.98	-0.08	3.21	1.75	-	34.10	8910.48
In&CmBkCh	3.69	-0.04	4.94	3.37	7.95	3.49	40871.32
IndstrlBk	16.67	0.52	23.22	15.01	4.60	4.62	49197.98
Kweichow	1533	4.85	2216.96	1359	1.24	34.93	273581.17
Midea	0.37	0.01	0.61	0.35	-	-4.09	14.02
New Ch Life Ins	16.06	0.06	24.70	12.04	9.21	3.15	2119.39
PetroChina	3.36	0.05	4.49	3.01	6.86	7.00	9046.79
PingAnIns	41.90	2.45	69.40	31.30	5.77	6.88	39822.57
PngAnBnk	11.95	0.52	19.06	10.39	1.44	7.22	32944.21
Pwr Cons Corp	7.19	-0.18	9.81	5.99	1.22	15.12	11227.06
SaicMtr	14.39	-0.12	22.14	13.77	4.08	7.28	23884.62
ShenwanHong	0.09	-	0.18	0.05	-	2.75	101.21
ShgPdgBk	7.03	0.09	8.81	6.64	6.47	4.55	29314.31
Sinopec Corp	3.41	0.01	4.28	3.06	3.95	4.24	11079
Sinopec Oil	1.94	-0.02	2.37	1.70	-	652.50	3739.86
Denmark (kr)							
DanskeBk	118.70	-1.25	133.25	91.28	1.61	8.53	14214.86
MollerMrsk	15425	-25.00	24070	13185	2.10	2.64	17938.4
NovoB	826.00	24.90	864.40	604.40	1.08	41.76	199921.93
Finland (€)							
Nokia	4.61	0.01	5.71	4.12	-	16.66	27109.76
SampoA	46.36	0.04	48.74	35.85	3.52	10.34	25532.05
France (€)							
Airbus Grpe	112.86	-0.14	120.36	86.52	-	21.69	91906.08
AirLiquide	137.08	2.00	153.40	114.48	1.91	26.52	74126.3
AXA	26.70	0.11	29.09	20.34	5.11	9.43	64454.76
BNP Parib	52.18	0.42	68.07	40.67	4.89	7.88	66542.78
ChristianDior	686.00	-8.50	733.50	513.00	0.97	26.26	127933.54
Cred Agr	9.63	0.09	14.27	8.09	7.92	5.51	30264.99
Danone	50.22	0.89	58.24	46.48	3.68	17.91	35065.84
EDF	11.92	-0.03	12.49	6.64	3.90	9.61	47863.98
Engie SA	14.24	0.25	14.61	9.79	3.55	10.52	35833.22
EssilorLuxottica	170.25	-0.65	195.00	132.70	0.60	54.44	78699.22
Hermes Intl	1448.5	-19.50	1678	957.60	0.30	65.20	157987.1
LOreal	346.50	-0.30	433.65	300.45	1.10	44.26	192142.6
LVMH	700.70	-5.50	741.60	535.00	0.95	30.76	364323.56
Orange	9.75	0.07	11.94	8.93	5.87	3393.45	26795.42
PernodRic	188.25	1.30	214.50	166.60	1.58	29.80	50168.5
Renault	32.76	0.23	38.07	20.47	-	-25.65	10009.05
Safran	109.34	-1.46	122.92	87.85	0.37	1146.74	48263.52
Sanofi	84.09	1.66	106.08	76.45	3.63	17.83	110116.8
Sant Gbn	45.40	0.07	64.82	35.20	2.86	11.38	24189
Schneider	141.14	-0.84	173.78	110.02	1.76	26.11	83276.39
SocGen	24.16	0.24	37.68	18.34	2.18	4.28	21213.95
Total	56.92	-0.11	58.43	40.09	4.53	11.47	154023.57
UnibailR	54.83	-0.62	73.09	39.68	-	-8.19	7860.43
Vinci	95.14	-0.17	103.74	80.74	2.70	22.12	58778.72
Vivendi	8.67	0.01	12.16	7.59	6.60	-16.24	9929.88
Germany (€)							
Allianz	202.00	1.35	232.50	156.22	4.53	13.38	85243.97
BASF	51.28	0.60	69.15	37.90	6.14	8.90	48661.12
Bayer	51.32	1.13	67.99	43.91	3.72	52.77	52089.56
BMW	85.03	0.79	97.60	67.58	2.13	4.75	52884.72
Continental	61.76	0.14	111.96	44.44	-	9.98	12761.9
Deut Bank	10.18	-0.04	14.64	7.46	-	10.50	21733.03
Deut Tlkm	18.88	0.02	19.77	14.47	3.03	22.76	97255.29
DeutsPost	39.35	-0.11	58.31	29.68	3.35	10.44	50367.07
E.ON	8.92	0.18	12.54	7.28	5.03	5.19	24330.77
Fresenius Med	29.97	0.39	63.66	26.19	4.26	9.50	9072.48
Fresenius SE	24.16	0.54	38.24	19.76	3.56	8.01	13940.77
HenkelKgaA	63.00	0.85	74.75	56.55	2.77	17.57	16909.78
Linde	323.85	2.65	326.55	244.00	1.10	52.77	165412.91
Mercedes-Benz	64.94	0.15	77.90	50.19	1.98	6.81	71778.61
MuenchRkv	289.00	3.40	291.40	205.15	3.23	14.48	41830.95
SAP	105.72	-0.26	127.44	81.35	1.67	24.86	134183.41
Siemens	122.86	0.26	156.98	93.67	2.72	19.38	107893.3
Volkswgn	191.35	0.85	290.00	158.80	2.39	6.78	58337.49
Hong Kong (HK$)							
AIA	75.70	2.65	92.50	57.25	1.53	19.95	114223.55
BOC Hold	24.30	-1.15	32.75	23.20	4.45	12.85	32786.51
Ch OSLnd&Inv	20.05	1.65	27.35	14.58	5.22	5.13	28004.35
ChngKng	47.40	0.20	57.00	42.90	3.25	11.17	21807.54
Citic Ltd	7.68	0.07	9.26	6.96	6.10	3.66	28510.78
Citic Secs	15.04	0.52	21.32	11.82	2.77	7.98	5028.77
CK Hutchison	42.40	0.05	60.45	38.80	4.68	5.53	20747.82
CNOOC	10.32	-	12.54	7.55	3.82	9.28	58706.71
HangSeng	123.60	5.90	169.50	110.00	4.30	20.48	30155.79
HK Exc&Clr	291.80	7.20	483.60	208.20	2.73	33.89	47211.6
MTR	36.90	-	43.70	33.45	2.90	27.52	29205.38
SandsCh	18.74	-	24.90	12.50	-	-21.32	19354.86
SHK Props	91.90	2.50	101.70	83.10	4.69	10.81	33984.5
Tencent	260.60	2.20	509.00	198.60	0.54	10.56	318636.18
India (Rs)							
Bhartiartl	821.90	-5.00	841.45	628.75	-	185.55	60238.65
HDFC Bk	1615.05	3.90	1722.1	1271.6	-	28.95	110791.68
Hind Unilevr	2457.8	-45.25	2734	1927	1.23	69.62	71068.2
HsngDevFin	2661.55	9.85	3021.1	2026	0.82	23.96	59525.8
ICICI Bk	894.95	-11.60	943.25	642.15	0.21	30.02	76776.77
Infosys	1585.3	15.20	1923.3	1360	1.81	33.12	82092.97
ITC	347.20	-9.15	361.45	207.00	2.93	30.51	52999.74
L&T	1999.8	-11.30	2056	1456.35	0.85	35.08	34580.22
OilNatGas	139.25	-1.20	189.80	119.85	6.19	4.17	21558.7
RelianceIn	2619.05	-12.75	2856.15	2222	0.25	31.69	218078.07
SBI NewA	592.55	-8.75	622.70	430.70	0.64	17.47	65080.5
SunPhrmInds	1016.9	3.35	1070.95	733.70	0.70	40.07	30026.58
Tata Cons	3335.5	19.55	3920	2950.1	1.03	33.69	150198.64
Israel (ILS)							
TevaPha	33.00	0.18	37.23	23.83	-	29.24	10728.71
Italy (€)							
Enel	5.08	0.03	7.25	3.96	6.88	24.78	53348.53
ENI	14.47	0.20	14.85	10.43	4.44	6.39	53917.6
Generali	17.08	0.22	21.55	13.67	8.21	10.06	27899.97
IntSPaolo	2.19	0.03	2.92	1.58	1.59	71.07	43893.22
Unicred	12.87	0.07	15.93	7.75	0.89	20.04	29748.18
Japan (¥)							
AstellasPh	2048	-28.00	2205	1739	2.37	29.90	26776.52
Bridgestne	5359	-39.00	5509	4042	3.27	11.82	27238.61
Canon	3129	-37.00	3516	2467	3.29	14.68	29721.51
CntJpRwy	16185	-25.00	17920	14660	0.85	-29.43	23744.68
Denso	7548	-40.00	9575	6549	1.96	20.06	42355.93
EastJpRwy	7697	29.00	8280	6373	1.37	-7.49	20716.77
Fanuc	20645	-120.00	25300	18740	2.31	23.81	29686.43
FastRetail	83450	1260	88230	54310	0.66	37.99	63040.6
Fuji Hvy Ind	2301.5	-98.50	2684	1664.5	2.57	25.64	12607.33
Hitachi	7175	-111.00	7460	4750	1.69	10.20	49492.6
HondaMtr	3301	-34.00	3755	3043	4.13	6.77	42584.65
JapanTob	2742.5	-38.00	2824	2000	5.26	13.54	39062.78
KDDI	4160	-111.00	4636	3237	3.05	13.52	68221.21
Keyence	60340	-370.00	74710	44880	0.35	48.90	104512.71
MitsbCp	4297	-43.00	4845	3383	3.39	9.30	45112
MitsubEst	994.83	0.79	1001.25	876.51	-	-	-
MitsubishiEle	1349	-9.00	1552.5	1225.5	3.13	11.69	20628.68
MitsuiFud	928.83	20.92	949.18	684.38	-	-	-
MitUFJFin	703.30	-7.50	828.30	601.40	3.90	6.91	66525.79
Mizuho Fin	1597.5	-32.50	1683.5	1397	5.16	7.41	28889.02
Murata Mfg	7746	-16.00	9410	6604	1.64	15.08	37280.03
Nippon T&T	3780	-94.00	4128	3054	2.93	11.54	97505.31
NipponTT	3780	-94.00	4128	3054	2.93	11.54	97505.31
Nissan Mt	492.90	-6.60	654.30	436.50	-	15.18	14816.02
Nomura	495.10	0.60	562.20	460.30	4.91	-32.28	11401.48
Nppn Stl	2149	-39.50	2318.5	1690.5	3.93	3.22	14544.32
Panasonic	1214.5	-7.00	1429.5	1006.5	2.17	11.64	21226.02
Seven & I	5424	-245.00	6083	4552	2.00	19.57	34241.79
ShnEtsuCh	17320	275.00	20480	14185	1.77	15.73	50689.58
Softbank	6068	-885.00	7217	4210	0.77	4.94	74457.03
Sony	11595	-35.00	14745	9213	0.55	14.04	104135.91
SumitomoF	4289	-58.00	4461	3672	4.93	7.91	41990.18
Takeda Ph	3790	-78.00	4063	2993	5.02	12.89	42708.22
TokioMarine	2787.5	-30.00	2848	1886	8.34	4.30	40497.81
Toyota	1986	-15.00	2375.5	1805	2.71	8.49	230755.76
Mexico (Mex$)							
AmerMvl	19.78	0.11	21.44	15.66	1.62	16.26	43311.14
FEMSA UBD	148.73	-1.67	169.96	120.63	1.34	123.64	16569.08
WalMrtMex	72.36	-0.33	82.93	64.81	0.69	36.66	65130.86
Netherlands (€)							
ASML Hld	565.30	13.80	777.50	376.10	0.57	45.77	237398.12
Heineken	86.26	0.36	100.95	77.50	1.08	15.68	51333.27
ING	11.21	0.12	14.00	7.90	5.10	9.56	43631.43
Unilever	45.79	0.86	48.81	39.36	3.13	23.50	136210.45
Norway (Kr)							
DNB	186.15	1.80	220.50	168.05	9.19	12.10	29012.96
Equinor	354.00	3.20	410.95	217.70	1.37	15.53	112356.04
Telenor	98.26	1.90	148.80	88.54	9.00	16.89	13744.27
Qatar (QR)							
QatarNtBk	20.00	-	27.00	18.40	2.45	16.62	50725.26
Saudi Arabia (SR)							
AlRajhiBnk	84.00	-0.10	117.40	78.60	2.49	16.35	89340.32
Natnlcombnk	56.50	1.60	82.00	54.80	2.24	21.77	67272.99
SaudiBasic	84.60	0.70	141.40	83.00	3.35	12.63	67483.86
SaudiTelec	38.25	-0.05	48.88	37.10	9.11	7.76	50852.2
Singapore (S$)							
DBS	34.86	0.07	37.49	29.45	3.11	15.30	65357.15
JardnMt US$	48.80	1.50	62.10	42.60	3.05	9.37	14158.05
OCBC	12.32	0.05	13.54	10.98	3.00	13.15	40331.45
SingTel	2.76	0.07	2.88	2.31	2.39	49.87	33190.05
UOB	29.95	0.45	33.33	25.47	2.92	14.27	36537.14
South Africa (R)							
Firstrand	66.30	-0.25	79.34	53.25	3.72	12.61	21520.13
MTN Grp	132.59	-2.66	211.49	115.46	-	19.00	14456.48
Naspers N	2348.89	-38.39	2853.25	1392.5	0.24	13.27	59193
South Korea (KRW)							
HyundMobis	219000	-500.00	265500	189500	1.76	8.84	15573.15
KoreaElePwr	19400	400.00	25100	16500	6.11	-11.72	9392.94
SK Hynix	90900	-2600.00	134000	80400	1.64	6.73	49909.81
SmsungEl	61900	-1000.00	80800	51800	2.25	11.09	278700.91
Spain (€)							
BBVA	5.37	0.07	6.19	3.97	6.60	7.66	33449.06
BcoSantdr	2.57	0.04	3.48	2.32	2.84	5.40	44627.26
CaixaBnk	3.17	0.05	3.64	2.22	0.81	21.82	26357.75
Iberdrola	10.50	0.15	11.49	8.47	3.83	18.88	68983.87
Inditex	24.35	0.15	32.24	18.55	0.87	26.93	78406.55
Repsol	13.85	0.09	16.23	9.60	4.13	8.85	20775.1
Telefonica	3.61	0.03	5.06	3.24	9.14	2.76	21545.79
Sweden (SKr)							
AtlasCpcoB	119.06	-0.94	133.60	22.08	6.14	8.00	17750.92
Ericsson	64.25	0.87	117.32	58.81	3.51	9.54	18855.45
H & M	124.32	0.50	191.86	98.25	5.07	17.25	17345.23
Investor	192.14	-1.02	228.75	158.22	1.82	8.32	33437.79
Nordea Bk	105.44	-0.04	113.78	85.25	13.88	12.39	37622.33
SEB	118.20	-0.25	141.40	91.64	8.55	9.95	24325.65
SvnskaHn	104.25	0.30	105.40	80.88	4.80	10.30	19365.66
Swedbank	164.10	-0.35	195.30	124.50	8.88	8.83	17743.68
Telia Co	29.66	0.61	41.70	27.93	6.75	10.54	11586.21
Volvo	192.12	-0.12	218.65	148.24	3.39	12.60	29149.86
Switzerland (SFr)							
ABB	29.80	0.12	33.86	23.84	2.51	15.11	61911.18
CredSuisse	4.29	0.02	9.59	3.52	2.10	-7.12	12019.05
Nestle	108.08	0.02	128.90	103.42	2.29	19.84	314285.7
Novartis	78.80	-0.21	88.42	73.01	3.44	9.05	200288.92
Richemont	116.95	-1.35	146.10	90.28	1.50	29.48	64553.14
Roche	312.65	-12.95	404.20	298.60	2.53	22.14	232268.4
Swiss Re	80.66	0.50	102.20	68.18	6.59	20.60	27079.76
Swisscom	494.40	6.30	587.40	443.40	4.00	15.55	27081.4
UBS	17.34	-0.12	19.90	13.10	1.80	9.44	64607.77
Zurich Fin	426.60	2.80	461.70	376.00	4.23	15.02	67871.74
Taiwan (NT$)							
Chunghwa Telecom	109.50	-	132.50	105.50	3.80	24.53	27338.72
Formosa PetChem	85.10	1.20	103.50	75.20	0.67	16.87	26090.56
HonHaiPrc	101.50	1.50	116.00	99.50	3.83	10.53	45286.37
MediaTek	697.00	-3.00	1200	533.00	5.16	10.20	35875.88
TaiwanSem	445.00	3.50	650.00	370.00	2.33	18.22	371375.94
Thailand (THB)							
PTT Explor	34.00	-0.75	41.25	32.75	5.53	9.63	27042.02
United Arab Emirates (Dhs)							
Emirtestele	24.30	0.70	38.98	11.60	2.75	27.17	57535.64
United Kingdom (p)							
Anglo American	3319	-32.00	4292.5	2487.5	5.37	6.57	54698.09
AscBrFd	1562	6.00	2063	1223	0.40	25.82	14508.92
AstraZen	10868	270.00	11540	8090.32	1.91	1840.16	161489.69
Aviva	440.80	2.40	606.58	341.92	4.84	58.00	20756.04
Barclays	157.62	-0.60	209.45	132.06	1.90	3.82	31556.87
BP	480.50	2.10	503.30	310.53	3.28	17.43	112362.86
BrAmTob	3255.5	68.50	3645	2514	6.62	11.01	71215.74
BT	124.95	5.15	201.40	113.80	-	12.13	14545.8
Compass	1822.5	34.00	1970.5	1435	0.77	44.34	35166.79
Diageo	3659	40.00	4097	3282.5	1.98	28.15	108076.17
GlaxoSmh	1365	41.40	2753.96	1280.92	5.86	15.76	78761.87
Glencore	512.00	10.00	548.30	346.40	1.73	18.74	86653.31
HSBC	480.30	10.10	567.20	409.85	3.36	10.49	112989.31
Imperial Brands	2038	44.50	2164	1434.23	6.78	6.81	22805.54
Jardine Mathes.	62.50	-	60.50	47.52	2.38	12.00	18132.75
LlydsBkg	43.61	0.09	56.00	38.10	5.89	6.06	36872.56
LSE Group	8022	-198.00	8612	6230	0.96	82.02	32566.14
Natl Grid	1009	11.80	1271.45	844.29	4.87	23.52	39736.9
Natwest Group	249.30	-0.30	284.42	196.92	4.21	9.81	35000.88
Prudential	994.80	-5.70	1516.5	782.40	1.18	16.16	30198.65
ReckittB	5668	112.00	6824	5400	3.08	-24.53	46831.32
RELX	2248	13.00	2634.82	2056	2.12	29.66	50542.8
RioTinto	5407	9.00	6343	4354	9.29	5.66	85086.96
RollsRoyce	91.60	2.29	161.91	64.44	-	62.31	1998.85
Shell PLC	2358	-2.00	2527	1534.2	2.57	12.43	127185.79
StandCh	577.20	11.60	641.00	406.20	1.53	12.94	22326.66
Tesco	230.40	2.20	304.10	194.35	3.97	11.73	22133.61
Unilever	4032.5	93.00	4178	3267.5	3.59	20.70	58278.78
Vodafone	104.16	0.44	141.60	97.40	7.43	-233.02	32598.06
WPP	878.60	11.20	1231.5	713.00	3.02	16.74	13051.81
United States of America ($)							
21stC Fox A	31.01	0.49	44.95	28.02	1.31	14.49	9379.74
3M	132.37	-0.61	186.30	107.07	3.87	15.10	73166.58
AbbottLb	102.90	-1.19	142.60	93.25	1.52	30.15	179413.74
Abbvie	153.02	2.86	175.91	115.01	2.94	27.39	270612.89
Accenture	290.45	0.36	417.37	242.95	1.10	34.04	193087.93
Activision Bli.	74.08	-0.06	82.00	56.40	0.55	24.86	57973.75
Adobe	341.61	0.46	699.54	274.73	-	38.79	158814.49
Advanced Micro	74.46	2.09	164.46	54.57	-	33.44	120050.72
AEP	89.80	-0.19	105.60	80.22	2.89	20.90	46142.39
Aflac	69.37	-0.93	70.79	52.07	1.65	12.53	43133.47
AirProd	295.47	7.01	310.87	216.24	1.76	35.83	65534.95
Allstate	130.74	-1.35	144.46	106.11	2.15	8.89	34673.5
Alphabet	95.52	-0.89	151.55	83.34	-	0.98	570541.56
Altria	44.41	0.03	57.05	40.35	6.87	38.26	79590.39
Amazon	98.76	-2.03	188.11	85.87	-	1.76	1007501.08
AmerAir	14.96	0.08	21.42	11.65	-	-4.61	9719.27
AmerExpr	155.02	0.13	199.55	130.65	1.04	17.38	115832.28
AmerIntGrp	60.47	0.08	65.73	47.05	1.83	6.45	44924.29
AmerTower	217.52	-5.74	291.99	178.17	2.07	44.36	101278.53
Amgen	287.99	2.97	296.67	198.64	2.12	32.34	153664.14
Amphenol Corp	79.55	0.23	88.45	61.67	0.85	36.59	47339.77
Analog Devices	164.32	0.26	191.95	133.48	1.47	63.69	84514.03
Anthem	482.58	12.71	-	-	-	-	-
Aon Cp	295.20	2.20	341.98	246.21	0.58	61.40	61062.99
Apple	148.42	-1.28	182.13	129.04	0.50	28.41	2361101.96
Applied Materi.	109.49	-1.04	167.06	71.12	0.75	17.44	94195.27
Aptiv	109.93	-1.79	179.40	77.96	-	65.41	29784.13
ArcherDan	94.69	1.62	98.88	61.80	1.35	22.82	52016.46
AT&T	19.14	0.09	21.53	14.46	9.41	8.01	136410.78
Autodesk	222.70	-6.11	335.48	163.20	-	113.68	48070.73
AutomData	250.93	1.70	261.59	192.26	1.32	44.84	104092.73
AutoZone	2463.7	54.71	2560.01	1703.32	-	25.70	46764.54
Avago Tech	520.81	2.72	677.76	415.07	2.50	33.95	210928.81
BakerHu	30.46	-0.57	39.78	20.42	2.11	81.37	30499.69
Bank of NY	44.36	-0.17	64.63	36.22	2.54	12.37	35851.26
BankAm	38.04	-0.38	50.11	29.31	1.78	12.30	305133.21
Baxter	53.94	-0.94	89.70	49.83	1.74	24.61	27192.27
BectonDick	225.92	-1.75	277.29	215.90	1.29	45.12	64431.28
BerkshHat	468795	-252.25	544389.26	393012.25	-	9.10	279789.04
Biogen	301.88	12.43	305.48	187.16	-	33.51	43471.14
BlackRock	743.25	-31.50	973.16	503.12	1.93	22.45	111632.86
Boeing	176.90	-0.59	233.94	113.02	-	-28.56	105045.2
Booking Holdings	2003.47	-12.30	2715.66	1616.85	-	82.10	77713.38
Bristol-Myers	77.38	1.42	81.17	53.22	2.25	28.63	164522.29
Broadcom	520.81	2.72	677.76	415.07	2.50	33.95	210928.81
Cadence Design	167.55	0.65	194.97	132.32	-	77.37	45961.65
CapOne	114.03	-2.22	160.54	90.27	1.52	4.88	43525.09
CardinalHlth	75.75	0.48	81.57	45.85	2.24	45.31	19856.65
Carnival	10.69	0.34	23.86	6.11	-	-1.47	11889.27
Caterpillar	237.41	0.92	238.40	160.60	1.56	23.17	123550.38
Centene Corp	82.42	0.35	98.53	69.51	-	41.73	46671.12
CharlesSch	76.33	-2.03	96.24	59.35	0.82	31.14	138603.5
Charter Comms	392.14	-2.26	703.65	297.66	-	18.50	61045.33
Chevron Corp	188.71	2.25	189.68	110.73	2.44	26.76	364896.93
Chipotle Mexic.	1526.18	19.83	1895.99	1196.28	-	76.93	42307.27
Chubb	207.50	1.24	218.99	173.78	1.33	12.43	86122.93
Cigna	310.41	6.59	331.05	191.74	1.12	22.78	94904.44
Cintas Corp	446.54	2.68	461.44	343.86	0.70	45.19	45344.05
Cisco	45.11	0.32	64.29	38.61	2.87	18.49	185349.96
Citigroup	49.60	-0.59	69.67	40.01	3.56	5.65	96067.9
CME Grp	175.37	1.12	256.94	166.58	1.78	27.77	63083.17
Coca-Cola	61.37	0.05	67.20	52.28	2.37	31.49	265395.38
Cognizant	58.54	0.12	93.47	51.33	1.42	16.69	30084.96
ColgtPlm	75.69	1.12	85.18	67.84	2.05	34.27	63217.36
Comcast	34.62	0.60	53.99	28.39	2.50	13.15	149349.44
ConocPhil	134.00	0.55	138.49	66.06	1.26	25.48	166973.52
Constellation	249.55	2.55	261.53	207.59	1.07	-1297.14	40233.57
Corning	34.68	0.22	43.47	28.98	2.40	31.28	29332.74
Corteva	67.06	2.29	68.43	43.74	0.69	32.65	47910.26
Corteva	67.06	2.29	68.43	43.74	0.69	32.65	47910.26
Costco	513.26	-2.21	612.27	406.51	0.54	47.30	227171
CrownCstl	136.34	-4.13	208.69	121.71	3.47	58.95	59042.85
CSX	32.16	0.22	38.63	25.80	1.05	20.50	67602.95
CVS	98.17	0.62	111.25	86.28	1.76	19.05	128992.13
Danaher	268.40	-2.60	331.69	233.71	0.29	35.35	195385.19
Deere	408.69	2.66	446.76	283.81	0.83	25.91	123350.66
Delta	35.10	-0.34	46.27	27.20	-	48.63	22504.37
Devon Energy	72.26	0.46	79.40	35.55	2.36	19.91	47236.36
Digital Realty	108.17	-3.42	176.53	85.76	3.72	21.02	31099.85
DiscFinServ	107.83	-0.95	129.12	87.64	1.51	6.98	29461.93
Disney	96.34	1.33	163.61	86.28	-	64.66	175633.2
Dollar General	250.62	1.48	262.21	183.25	0.59	28.18	56532.79
DominRes	58.83	-2.83	88.78	58.72	3.71	21.29	49021.58
DukeEner	95.60	0.43	116.33	83.76	3.53	22.39	73618
DuPont	72.03	1.22	84.08	49.52	1.44	25.74	35781.22
Eaton	162.92	1.32	175.72	122.50	1.62	35.22	64793.28
eBay	46.46	-0.05	76.58	35.92	1.34	141.14	25211.94
Ecolab	154.84	-0.84	238.93	131.04	1.09	45.72	44102.78
Edwards Lifesc.	73.84	-0.81	131.73	67.13	-	35.82	45652.36
Eli Lilly	355.64	4.32	369.80	231.87	0.83	67.08	337921.27
Emerson	95.73	0.29	100.00	72.41	1.84	24.13	56605.15
EOG Res	147.58	0.47	150.88	80.67	0.95	21.32	86684
Equinix	647.90	-12.70	847.10	494.89	1.53	135.25	59955.44
EquityResTP	62.43	-0.36	94.32	59.32	3.34	21.03	23591.59
Exelon	38.42	-0.69	50.71	29.10	3.45	25.49	38179.57
ExxonMb	114.06	1.02	114.66	57.96	2.65	24.43	469732.55
Fedex	177.35	1.74	260.50	141.92	1.40	11.01	46148.68
Fidelity NIS	64.70	-0.70	122.06	56.53	2.09	111.48	38391.65
Fiserv	101.47	1.00	110.94	87.03	-	58.86	64436.3
FordMtr	14.29	-0.06	25.87	10.61	0.61	3.71	56440.38
Franklin	27.37	0.04	36.20	20.24	3.58	8.36	13637.54
GenDyn	244.23	1.10	254.99	188.64	1.66	24.41	67053.09
GenElectric	86.17	-0.14	108.67	59.93	0.32	-30.61	94154.12
GenMills	78.22	0.97	82.10	61.41	2.28	23.85	46426.36
GenMotors	40.60	-0.52	67.21	30.33	-	7.00	57680.29
GileadSci	83.50	1.68	83.80	57.17	2.95	19.55	104729.36
GoldmSchs	385.24	0.07	407.48	277.84	1.46	7.48	130455.59
Halliburton	37.85	-0.89	43.99	20.77	0.60	24.55	34369.57
HCA Hold	223.52	-0.56	279.02	164.47	0.74	12.19	63192.84
Hew-Pack	30.49	-0.06	41.47	24.08	2.38	6.35	30671.07
Hilton Worldwi.	140.56	-0.07	167.99	108.41	-	111.14	38015.3
HiltonWwde	140.56	-0.07	167.99	108.41	-	111.14	38015.3
HomeDep	309.79	-5.15	420.61	264.51	1.86	22.81	317140.21
Honywell	214.66	1.93	224.04	166.63	1.52	31.33	144320.69
HumanaInc	530.16	1.63	571.30	363.73	0.46	27.00	67117.79
IBM	144.93	1.76	145.21	114.56	3.91	32.11	131035.03
IDEXX Laborato.	433.45	-7.82	664.70	317.06	-	58.18	35897.01
IllinoisTool	227.89	1.46	248.11	173.52	1.79	30.91	70004.7
Illumina	237.97	-4.77	397.44	173.45	-	54.51	37432.68
Intcntl Exch	104.39	0.07	138.46	88.60	1.10	16.78	58307.2
Intel	30.85	0.42	55.00	24.59	3.90	7.33	127297.32
Intuit	393.96	-14.08	716.86	339.36	0.56	56.95	111044.16
John&John	172.23	2.98	186.69	155.72	2.11	25.46	450292.51
JohnsonCn	65.78	-0.62	81.69	45.52	1.51	34.67	45306.5
JPMrgnCh	135.14	-0.16	169.44	101.28	2.44	10.16	396393.31
Kimb-Clark	129.23	1.78	144.53	108.74	3.16	28.00	43614.1
KinderM	18.79	0.10	20.20	15.01	5.12	46.87	42245.19
KLA Corp	380.88	0.67	442.44	250.20	0.89	22.63	53977.68
Kraft Heinz	37.42	0.43	44.87	32.73	3.70	52.68	45836.89
Kroger	47.15	0.31	62.78	40.18	1.45	24.85	33750.27
LasVegasSd	43.54	0.22	48.27	28.88	-	-33.29	33271.8
LibertyGbl	20.44	-0.06	29.56	15.22	-	1.01	3513.68
Lilly (E)	355.64	4.32	369.80	231.87	0.83	67.08	337921.27
Linde	335.40	5.18	346.50	262.47	1.10	52.89	165812.42
Lockheed	461.51	-2.36	494.66	328.20	2.09	22.88	120948.44
Lowes	206.02	-3.00	263.31	170.12	1.27	19.57	127876.73
Lyondell	88.20	-0.87	117.22	71.46	4.36	6.07	28718.45
Marathon Ptl	121.85	0.62	123.12	59.55	1.65	69.63	57106.32
Marsh&M	167.19	0.59	183.14	142.80	1.39	29.69	82927.83
MasterCard	340.81	1.52	399.92	276.87	0.57	44.91	325065.61
McDonald's	273.59	2.20	281.67	217.68	1.66	31.46	200383.85
McKesson	363.47	7.26	401.78	215.27	0.42	47.52	51537.68
Medtronic	83.12	-0.43	120.10	79.20	2.60	26.18	110479.22
Merck	100.94	2.98	103.76	71.50	2.27	23.98	255922.87
Meta	196.64	0.99	384.33	169.00	-	15.41	450997.53
Metlife	74.15	-0.34	75.63	57.05	2.22	11.71	58178.55
Microsoft	242.35	-4.76	349.67	213.43	0.82	29.79	1806591.57
Mnstr Bvrg	98.01	-0.11	100.47	71.78	-	44.02	51136.09
MondelezInt	64.89	0.09	69.47	54.72	1.78	24.64	88614.98
Monsanto	10.00	0.00	10.01	9.66	-	52.91	249.98
MorganStly	90.33	-0.45	109.73	72.05	2.01	12.99	152667.58
Netflix	302.39	12.26	700.99	162.71	-	31.06	134569.75
NextEraE	82.76	-0.56	92.91	67.22	1.70	125.50	164447.73
Nike	105.06	-1.03	177.75	82.22	0.97	31.70	132759.35
NorfolkS	254.55	3.64	296.87	203.65	1.42	24.26	58930.79
Northrop	482.35	-10.35	556.27	345.90	1.11	12.79	74239.53
NXP	170.57	0.63	239.91	132.08	1.14	29.00	44199.34
Occid Pet	74.06	-0.28	77.13	26.05	0.05	41.50	67309.64
Oracle	78.67	0.93	106.34	60.78	1.42	34.34	212107.4
Pepsico	178.64	0.59	183.58	153.37	2.06	37.56	246113.97
Perrigo	33.19	-0.24	44.23	31.32	2.51	-39.10	4468.69
Pfizer	49.30	1.70	61.71	41.45	2.74	14.48	276708.34
Phillips66	112.10	0.80	113.53	67.08	2.80	43.57	52982.07
PhilMorris	94.78	0.31	112.48	82.85	4.48	18.77	146928.17
PNCFin	165.51	-0.25	214.50	143.52	2.51	15.04	66753.33
PPG Inds	127.97	-2.12	172.78	107.06	1.61	32.42	30077.21
ProctGmbl	142.07	1.10	165.35	122.18	2.18	27.87	338895.98
Prudntl	109.27	-0.94	124.22	85.46	3.65	6.47	40211.36
PublStor	292.62	-2.56	421.76	270.73	2.37	34.22	51395.31
Qualcomm	122.54	1.11	192.68	101.93	1.90	16.20	137367.34
Raytheon	93.59	-0.06	106.02	79.00	1.86	41.88	137582.99
Regen Pharm	750.40	15.95	769.63	538.01	-	12.04	80355.29
S&P Global	348.97	-7.23	484.21	279.32	0.76	32.20	113694.43
Salesforce	157.14	-0.59	309.90	136.04	-	121.41	157140
Schlmbrg	54.31	-0.52	56.04	27.65	0.80	47.49	77004.15
Sempra Energy	156.65	2.00	176.47	119.56	2.43	45.10	49240.32
Shrwin-Will	233.74	-3.50	354.15	195.24	0.82	38.66	60572.18
SimonProp	118.75	-1.45	171.12	86.02	5.22	20.04	38824.81
SouthCpr	60.16	-0.23	79.32	42.42	4.61	15.82	46509.6
Starbucks	97.79	0.41	117.34	68.39	1.63	30.51	112204.25
StateSt	80.80	-0.19	103.76	58.62	2.34	12.97	29648.76
Stryker	221.33	-2.97	279.28	188.84	1.01	49.04	83756
Sychrony Fin	38.82	-1.41	51.09	27.22	2.02	5.90	17490.02
T-MobileUS	146.02	-0.18	154.38	101.51	-	69.94	181665.17
Target	173.70	0.38	268.98	137.16	1.59	14.09	79947.62
TE Connect	125.59	1.48	166.44	104.76	1.37	19.70	40166.98
Tesla Mtrs	192.06	-3.91	400.65	177.12	-	45.25	606473.83
TexasInstr	180.26	0.77	199.90	144.46	2.02	25.19	163598.88
TheTrvelers	183.63	1.90	187.98	145.40	1.71	13.07	43032.06
ThrmoFshr	537.57	-1.11	668.94	475.77	0.17	31.89	210831.39
TJX Cos	73.96	0.06	76.94	53.69	1.23	31.32	85871.48
Truist Financial Corp	46.98	-0.29	66.10	40.01	3.43	12.13	62324.85
Twitter	53.70	0.35	60.16	31.30	-	-224.30	41093.72
UnionPac	220.57	3.07	278.94	183.70	1.82	23.53	135606.61
UPS	179.72	1.53	233.72	154.87	1.97	14.13	131163.42
USBancorp	44.77	-0.16	60.98	38.39	3.41	10.13	66512.89
UtdHlthcre	519.92	-2.16	558.10	436.00	0.93	33.20	485786.77
ValeroEngy	139.47	5.51	146.81	65.13	2.43	70.92	53767
Verizon	38.71	0.41	55.51	34.55	5.67	8.40	162553.93
VertexPharm	307.90	4.64	318.38	179.96	-	39.45	79035.3
VF Cp	33.46	0.12	78.91	26.46	5.10	12.66	13001.42
Visa Inc	206.68	1.68	235.85	174.60	0.56	39.50	337924.83
Walgreen	41.32	0.06	53.46	30.39	4.02	6.91	35734.08
WalMartSto	140.44	-2.15	160.77	117.27	1.37	32.97	381174
Walt Disney	96.34	1.33	163.61	86.28	-	64.66	175633.2
Waste Manage.	159.60	1.44	175.98	138.58	1.25	42.95	65512.14
WellsFargo	47.47	-0.09	60.30	36.54	1.41	11.07	180864.95
Williams Cos	34.25	0.17	37.97	24.86	4.15	31.88	41722.05
Workday	152.68	-4.27	307.81	128.72	-	1454.93	30688.68
Yum!Brnds	124.12	0.79	139.85	103.97	1.40	27.50	34961.69
Zoetis	148.13	-0.43	249.27	124.15	0.58	40.05	69036.91
Zoom	85.04	-3.28	268.88	70.44	-	21.61	21342.93
Venezuela (VEF)							
Bco de Vnzla	1.15	0.05	2.14	0.32	155.39	-	451.88
Bco Provncl	3.15	0.35	3.30	1.70	-	0.00	127.27

Closing prices and highs & lows are in traded currency (with variations for that country indicated by stock), market capitalisation is in USD. Highs & lows are based on intraday trading over a rolling 52 week period.
♦ ex-dividend
■ ex-capital redistribution
price at time of suspension

FT 500: TOP 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
China Vanke	13.84	12.84	1.00	7.79	3.12	29.1	1.77
Ch OSLnd&Inv	20.05	18.40	1.65	8.97	4.07	25.5	1.71
ChinaMBank	35.95	33.45	2.50	7.47	6.60	22.5	19.60
Carnival	10.69	10.35	0.34	3.24	1.93	22.0	50.08
PingAnIns	41.90	39.45	2.45	6.21	7.25	20.9	10.00
SHOP	51.78	52.34	-0.56	-1.07	8.45	19.5	41.72
VF Cp	33.46	33.34	0.12	0.36	5.25	18.6	15.80
HK Exc&Clr	291.80	284.60	7.20	2.53	45.60	18.5	12.69
ASML Hld	563.40	551.50	11.90	2.16	86.60	18.2	36.88
Advanced Micro	74.46	72.37	2.09	2.88	11.38	18.0	33.30
Franklin	27.37	27.33	0.04	0.13	4.15	17.9	26.12
Netflix	302.39	290.13	12.26	4.23	43.79	16.9	31.38
MediaTek	697.00	700.00	-3.00	-0.43	100.00	16.8	28.13
DuPont	72.03	70.81	1.22	1.72	10.29	16.7	38.15
TaiwanSem	445.00	441.50	3.50	0.79	63.00	16.5	12.66
AIA	75.70	73.05	2.65	3.63	10.15	15.5	13.50
New Ch Life Ins	16.06	16.00	0.06	0.38	2.14	15.4	12.80
Applied Materi.	109.49	110.53	-1.04	-0.94	14.45	15.2	46.41
KoreaElePwr	19400.00	19000.00	400.00	2.11	2550.00	15.1	12.46
Cadence Design	167.55	166.90	0.65	0.39	21.55	14.8	13.60

Based on the FT Global 500 companies in local currency

FT 500: BOTTOM 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
Bradesco	12.93	13.00	-0.07	-0.54	-3.39	-20.8	-20.85
Perrigo	33.19	33.43	-0.24	-0.72	-6.09	-15.5	-14.27
ItauHldFin	22.75	22.90	-0.15	-0.66	-2.68	-10.5	-5.33
Equinor	354.00	350.80	3.20	0.91	-39.40	-10.0	-5.32
Northrop	482.35	492.70	-10.35	-2.10	-52.42	-9.8	3.96
Fuji Hvy Ind	2301.50	2400.00	-98.50	-4.10	-226.50	-9.0	3.13
Cielo	5.14	5.11	0.03	0.59	-0.50	-8.9	-10.61
McKesson	363.47	356.21	7.26	2.04	-32.33	-8.2	3.06
Softbank	6068.00	6953.00	-885.00	-12.73	-489.00	-7.5	11.21
DominRes	58.83	61.66	-2.83	-4.59	-4.11	-6.5	-8.38
CardinalHlth	75.75	75.27	0.48	0.64	-5.23	-6.5	11.31
Shell PLC	2358.00	2360.00	-2.00	-0.08	-143.00	-5.7	3.52
Nippon T&T	3780.00	3874.00	-94.00	-2.43	-225.00	-5.6	-2.97
NipponTT	3780.00	3874.00	-94.00	-2.43	-225.00	-5.6	-2.97
PTT Explor	34.00	34.75	-0.75	-2.16	-2.00	-5.6	-1.45
Lockheed	461.51	463.86	-2.36	-0.51	-27.13	-5.6	18.53
WalMrtMex	72.68	72.69	-0.01	-0.01	-4.10	-5.3	1.48
CaixaBnk	3.17	3.12	0.05	1.44	-0.18	-5.3	-6.28
Chna Utd Coms	3.46	3.47	-0.01	-0.29	-0.19	-5.2	1.17
ANZ Bank	24.27	24.64	-0.37	-1.50	-1.23	-4.8	-3.96

Based on the FT Global 500 companies in local currency

BONDS: HIGH YIELD & EMERGING MARKET

Nov 14	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
High Yield US$										
HCA Inc.	04/24	8.36	BB-	Ba2	BB	113.75	4.24	0.00	0.12	-
High Yield Euro										
Aldesa Financial Services S.A.	04/21	7.25	-	-	B	71.10	28.23	0.00	0.64	25.98
Emerging US$										
Peru	03/19	7.13	BBB+	A3	BBB+	104.40	2.60	-	-	0.34
Colombia	01/26	4.50	-	Baa2	BBB-	109.50	2.33	0.16	0.52	1.28
Brazil	04/26	6.00	-	Ba2	BB-	115.15	2.78	-0.01	0.65	1.73
Poland	04/26	3.25	-	A2	A-	111.22	0.98	0.03	0.16	-0.07
Mexico	05/26	11.50	-	Baa1	BBB-	149.00	1.61	0.00	-0.12	0.56
Turkey	03/27	6.00	-	Ba2	BB+	101.26	5.82	0.00	0.17	3.07
Turkey	03/27	6.00	-	B2	BB-	102.88	5.43	0.14	0.83	4.38
Peru	08/27	4.13	BBB+	A3	BBB+	103.50	3.66	0.01	-0.02	0.80
Russia	06/28	12.75	-	Baa3	BBB	168.12	2.48	0.07	0.05	-
Brazil	02/47	5.63	-	Ba2	BB-	101.48	5.52	0.08	0.80	-
Emerging Euro										
Brazil	04/21	2.88	BB-	Ba2	BB-	103.09	0.05	0.01	-0.09	-1.19
Mexico	04/23	2.75	BBB+	A3	BBB+	107.76	0.76	0.00	-0.07	-1.56
Mexico	04/23	2.75	-	Baa1	BBB-	106.48	-0.26	-	-	-0.36
Bulgaria	03/28	3.00	BBB-	Baa2	BBB	117.04	1.00	0.02	-0.15	-1.42

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company. US $ denominated bonds NY close; all other London close. *S - Standard & Poor's, M - Moody's, F - Fitch.

BONDS: GLOBAL INVESTMENT GRADE

Nov 14	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
US$										
FleetBoston Financial Corp.	01/28	6.88	BBB+	Baa1	A-	129.00	2.54	-0.01	-0.05	-
The Goldman Sachs Group, Inc.	02/28	5.00	BBB+	A3	A	117.21	2.47	0.00	0.32	-
NationsBank Corp.	03/28	6.80	BBB+	Baa1	A-	127.69	2.72	-0.01	0.06	-
GTE LLC	04/28	6.94	BBB+	Baa2	A-	128.27	2.80	0.00	-0.11	-
United Utilities PLC	08/28	6.88	BBB	Baa1	A-	130.43	2.62	-0.07	-0.22	-
Barclays Bank plc	01/29	4.50	A	A1	A+	96.46	5.02	0.00	0.02	-
Euro										
Electricite de France (EDF)	04/30	4.63	A-	A3	A-	137.45	0.82	-0.01	0.10	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	121.70	0.93	0.00	0.02	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	124.42	0.68	0.00	-0.11	-
Finland	04/31	0.75	AA+	Aa1	AA+	111.08	-0.27	0.00	-0.05	-0.87
Yen										
Mexico	06/26	1.09	-	Baa1	BBB-	98.73	1.34	-0.02	-0.14	0.27
£ Sterling										
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	137.45	2.19	-0.03	0.02	-
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	128.68	3.20	0.00	-0.01	0.40

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INTEREST RATES: OFFICIAL

Nov 14	Rate	Current	Since	Last
US	Fed Funds	3.00-3.25	21-09-2022	2.25-2.5
US	Prime	6.25	22-09-2022	5.50
US	Discount	3.25	22-09-2022	2.50
Euro	Repo	0.53	01-11-2022	0.374
UK	Repo	3.00	02-11-2022	2.25
Japan	O'night Call	0.00-0.10	01-02-2016	0.00
Switzerland	Libor Target	-1.25-0.25	15-01-2015	-0.75--0.25

INTEREST RATES: MARKET

Nov 14 (Libor: Nov 11)	Over night	Change Day	Change Week	Change Month	One month	Three month	Six month	One year
US$ Libor	3.81486	0.003	2.889	0.002	3.87529	4.60614	5.08400	5.45129
Euro Libor	-0.64957	-0.064	-0.224	0.001	-0.61943	-0.58057	-0.55600	-0.48571
£ Libor	0.18063	-0.005	-0.043	-0.003	2.95850	3.46870	4.03360	0.81363
Swiss Fr Libor				-0.002	-0.77540	-0.75300	-0.70280	-0.55320
Yen Libor				0.000	-0.06005	-0.03973	0.03220	0.04867
Euro Euribor				-0.033	1.36200	1.76200	2.29100	2.81100
Sterling CDs				0.000	0.50000	0.63000	0.78500	
US$ CDs				0.000	3.84000	4.50000	4.95000	
Euro CDs				0.010	1.39000	1.72000	2.17000	

Nov 14	Short term		7 Days notice		One month		Three month		Six month		One year	
Euro	1.16	1.46	1.19	1.49	1.24	1.54	1.57	1.87	2.02	2.32	2.42	2.72
Sterling					0.45	0.55	0.58	0.68	0.71	0.86	0.90	1.05
US Dollar	3.50	3.70	3.64	3.84	3.74	3.94	4.40	4.60	4.85	5.05	5.13	5.33
Japanese Yen	-0.15	0.05	-0.20	0.00	-0.20	0.00	-0.15	0.05	-0.10	0.20	-0.05	0.25

Libor rates come from ICE (see www.theice.com) and are fixed at 11am UK time. Other data sources: US $, Euro & CDs: Tullett Prebon; SDR, US Discount: IMF; EONIA: ECB; Swiss Libor: SNB; EURONIA, RONIA & SONIA: WMBA.

BOND INDICES

	Index	Day's change	Month's change	Year change	Return 1 month	Return 1 year
Markit IBoxx						
ABF Pan-Asia unhedged	194.27	2.66	3.78	-11.61	3.99	-11.12
Corporates(£)	322.91	-0.04	2.37	-18.42	10.66	-19.10
Corporates(€)	207.43	-0.22	1.10	-14.12	1.82	-14.69
Eurozone Sov(€)	212.78	-1.17	0.19	-16.37	1.52	-17.25
Gilts(£)	279.28	-0.77	1.98	-22.31	13.03	-22.88
Overall(£)	285.96	-0.60	1.98	-21.00	11.96	-21.59
Overall(€)	207.86	-0.85	0.47	-15.73	1.64	-16.50
FTSE						
Sterling Corporate (£)	-	-	-	-	-	-
Euro Corporate (€)	104.47	-0.05	-	-	0.54	-1.73
Euro Emerging Mkts (€)	630.00	7.32	-	-	14.62	-21.11
Eurozone Govt Bond	110.04	-0.19	-	-	-0.34	-0.64

CREDIT INDICES

	Index	Day's change	Week's change	Month's change	Series high	Series low
Markit iTraxx						
Crossover 5Y	475.39	-7.10	-42.53	-151.66	688.92	468.70
Europe 5Y	95.94	-1.79	-10.93	-35.35	142.08	95.42
Japan 5Y	84.75	0.57	-13.44	-20.33	119.29	84.18
Senior Financials 5Y	105.66	-1.41	-9.50	-39.28	155.06	104.16
Markit CDX						
Emerging Markets 5Y	246.87	0.04	-35.50	-88.42	335.29	246.83
Nth Amer High Yld 5Y	486.06	0.00	-36.99	-109.34	625.47	486.06
Nth Amer Inv Grade 5Y	83.05	0.00	-6.99	-21.01	110.98	83.05

Websites: markit.com, ftse.com. All indices shown are unhedged. Currencies are shown in brackets after the index names.

VOLATILITY INDICES

	Nov 14	Day Chng	Prev	52 wk high	52 wk low
VIX	23.16	0.64	22.52	38.93	16.03
VXD	20.93	-0.73	21.66	45.37	3.27
VXN	29.70	0.73	28.97	44.05	9.94
VDAX	21.67	-0.51	22.18	93.30	-

† CBOE. VIX: S&P 500 index Options Volatility, VXD: DJIA Index Options Volatility, VXN: NASDAQ Index Options Volatility.
‡ Deutsche Borse. VDAX: DAX Index Options Volatility.

BONDS: BENCHMARK GOVERNMENT

	Red Date	Coupon	Bid Price	Bid Yield	Day chg yield	Wk chg yield	Month chg yld	Year chg yld
Australia	11/22	2.25	99.99	2.93	0.01	0.04	0.26	2.72
	05/32	1.25	80.87	3.65	-0.06	-0.19	-0.38	-
	02/50	1.00	95.42	1.65	-0.05	-0.19	-0.47	1.41
Austria	02/29	0.50	87.93	2.61	0.17	-0.15	-0.09	2.78
	02/47	1.50	75.94	2.89	0.13	-0.13	-0.25	2.48
Belgium	06/27	0.80	93.41	2.33	0.15	-0.11	-0.04	2.69
	06/47	1.60	74.39	3.10	0.15	-0.10	-0.18	2.40
Canada	03/25	1.25	94.49	3.78	-	-	-	-
	06/30	1.25	87.38	3.14	-	-	-	-
	12/48	2.75	90.29	3.31	-	-	-	-
Denmark	11/29	0.50	87.97	2.39	0.17	-0.21	-0.26	2.52
	11/52	0.25	55.95	2.30	0.15	-0.19	-0.42	2.02
Finland	09/24	0.00	96.11	2.19	0.15	0.02	0.22	2.83
	09/29	0.50	86.51	2.69	0.17	-0.11	-0.07	2.86
France	05/28	0.75	91.54	2.40	0.17	-0.09	-0.06	2.63
	05/48	2.00	82.08	3.02	0.16	-0.13	-0.18	2.35
Germany	08/29	0.00	86.99	2.09	0.16	-0.09	-0.06	2.46
	08/50	0.00	55.94	2.12	0.14	-0.12	-0.20	2.07
Greece	01/23	3.50	100.43	1.41	0.01	0.28	0.10	1.62
	01/28	3.75	99.26	3.91	-0.03	-0.26	-0.54	3.26
Ireland	-	-	-	-	-	-	-	-
	05/26	1.00	95.77	2.27	0.14	-0.03	0.14	2.65
	02/45	2.00	83.88	3.00	0.14	-0.12	-0.20	2.38
Italy	02/25	0.35	94.62	2.88	0.22	-0.14	-0.23	2.98
	05/30	0.40	91.51	1.61	0.17	-0.17	-0.63	2.54
	03/48	3.45	86.96	4.30	0.18	-0.17	-0.29	2.61
Japan	04/25	0.05	100.05	0.03	0.00	-0.02	-0.01	-0.04
	12/29	0.10	99.66	0.15	-0.03	-0.08	-0.08	0.18
	12/49	0.40	78.23	1.36	-0.06	-0.08	0.03	0.69
Netherlands	07/27	0.75	93.56	2.22	0.17	-0.09	0.00	2.64
	01/47	2.75	105.74	2.43	0.14	-0.15	-0.24	2.33
New Zealand	05/31	1.50	80.92	4.19	-0.20	-0.34	-0.27	1.57
	09/40	2.50	120.63	2.27	-0.12	-0.23	-0.38	1.25
Norway	08/30	1.38	86.65	3.36	0.06	-0.10	-0.31	1.72
Poland	01/23	2.50	99.16	7.01	0.02	-0.33	-0.20	4.41
	07/27	2.50	81.22	7.38	-0.01	-1.04	-0.63	4.46
	04/47	4.00	61.41	7.48	-0.37	-0.95	0.38	3.96
Portugal	04/27	4.13	106.70	2.50	0.18	-0.06	-0.03	2.68
Spain	-	-	-	-	-	-	-	-
	10/29	0.60	86.00	2.85	0.18	-0.13	-0.21	2.63
	10/46	2.90	90.23	3.51	0.17	-0.13	-0.25	2.41
Sweden	06/30	0.13	115.43	-0.15	0.07	-0.08	-0.07	1.61
	03/39	3.50	121.30	1.97	0.02	-0.16	-0.25	1.42
Switzerland	04/28	4.00	116.27	0.90	0.14	-0.08	-0.35	1.18
	06/29	0.00	94.01	0.94	0.11	-0.11	-0.37	1.14
United Kingdom	07/23	0.75	98.46	3.03	-0.06	0.19	-0.78	2.54
	07/27	1.25	90.92	3.36	0.05	-0.06	-1.19	2.68
	07/47	1.50	66.12	3.58	0.08	-0.29	-1.29	2.48
United States	-	-	-	-	-	-	-	-
	03/25	0.50	91.61	4.25	0.03	-0.33	-0.09	3.29
	02/30	1.50	85.19	3.86	0.03	-0.33	-0.16	2.36
	02/50	0.25	68.04	1.72	-0.02	-0.19	-0.15	-

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company.

GILTS: UK CASH MARKET

Nov 14	Price £	Red Yield	Change in Yield Day	Change in Yield Week	Change in Yield Month	Change in Yield Year	52 Week High	52 Week Low	Amnt £m
	-	-	-	-	-	-	-	-	-
Tr 0.75pc '23	98.49	3.00	0.00	-0.99	-12.54	581.82	100.82	97.34	34.36
Tr 0.125pc '24	96.41	3.18	-0.31	-1.24	-15.87	523.53	99.44	94.34	35.55
Tr 2pc '25	97.05	3.10	-0.32	-3.43	-21.52	484.91	105.86	93.15	39.93
Tr 0.125pc '26	90.80	3.16	-0.32	-3.95	-23.49	444.83	98.77	86.33	35.32
Tr 1.25pc '27	91.05	3.33	-0.30	-4.86	-21.83	420.31	104.30	85.65	40.99
Tr 0.875pc '29	84.95	3.32	-0.30	-5.95	-21.33	325.64	102.36	78.21	43.62
Tr 4.25pc '32	107.30	3.35	0.00	-7.46	-20.80	256.38	135.62	98.13	40.33
Tr 4.25pc '36	106.87	3.60	0.28	-7.93	-20.18	246.15	145.94	94.91	31.68
Tr 4.5pc '42	111.68	3.67	0.00	-8.25	-22.08	230.63	169.96	93.79	28.35
Tr 3.75pc '52	104.77	3.49	0.29	-9.11	-24.13	229.25	180.27	82.51	25.11
Tr 4pc '60	115.74	3.27	0.62	-9.92	-26.52	233.67	213.01	87.32	25.13

Gilts benchmarks & non-rump undated stocks. Closing mid-price in pounds per £100 nominal of stock.

GILTS: UK FTSE ACTUARIES INDICES

Price Indices Fixed Coupon	Nov 14	Day's chg %	Total Return	Return 1 month	Return 1 year	Yield
1 Up to 5 Years	81.74	0.03	2350.55	2.23	-4.35	3.22
2 5 - 10 Years	149.98	0.02	3163.56	6.73	-13.96	3.36
3 10 - 15 Years	160.64	0.00	3690.86	11.32	-20.88	3.58
4 5 - 15 Years	151.62	0.01	3290.79	7.97	-16.11	3.44
5 Over 15 Years	232.12	-0.12	3972.70	25.04	-35.63	3.46
7 All stocks	140.13	-0.03	3116.40	11.36	-21.49	3.44

Index Linked	Nov 14	Day's chg %	Month chg %	Year's chg %	Total Return	Return 1 month	Return 1 year
1 Up to 5 Years	326.07	0.01	2.98	3.83	2757.15	3.26	5.02
2 Over 5 years	588.79	1.04	32.23	-35.29	4487.89	32.40	-35.00
3 5-15 years	463.09	0.41	14.93	-14.17	3745.39	15.11	-13.52
4 Over 15 years	689.04	1.42	44.99	-43.40	5098.85	45.16	-43.23
5 All stocks	551.18	0.89	26.86	-31.38	4285.91	27.05	-31.01

Yield Indices	Nov 14	Nov 11	Yr ago		Nov 14	Nov 11	Yr ago
5 Yrs	3.22	3.22	0.64	20 Yrs	3.66	3.65	1.17
10 Yrs	3.49	3.49	0.95	45 Yrs	3.14	3.14	0.93
15 Yrs	3.65	3.65	1.12				

Real yield	inflation 0% Nov 14	inflation 0% Dur yrs	inflation 0% Previous	inflation 0% Yr ago	inflation 5% Nov 14	inflation 5% Dur yrs	inflation 5% Previous	inflation 5% Yr ago
Up to 5 yrs	-1.61	1.46	-1.60	-3.73	-2.15	1.47	-2.14	-4.06
Over 5 yrs	-0.11	19.75	-0.06	-2.54	-0.13	19.79	-0.08	-2.56
5-15 yrs	-0.38	8.57	-0.33	-3.08	-0.46	8.58	-0.41	-3.16
Over 15 yrs	-0.06	25.99	-0.01	-2.49	-0.07	26.00	-0.02	-2.49
All stocks	-0.13	17.10	-0.08	-2.56	-0.16	17.16	-0.11	-2.57

See FTSE website for more details www.ftse.com/products/indices/gilts
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Tradeweb

COMMODITIES

www.ft.com/commodities

Energy		Price*	Change
Crude Oil†	Dec	88.13	-0.83
Brent Crude Oil‡		94.16	-1.83
RBOB Gasoline†	Dec	2.60	-0.01
Natural Gas†	Dec	6.24	0.36
Base Metals (♠ LME 3 Months)			
Aluminium		2432.50	-25.50
Aluminium Alloy		1675.00	-905.00
Copper		8418.00	-173.00
Lead		2168.50	9.00
Nickel		27500.00	0.00
Tin		21475.00	275.00
Zinc		3112.50	83.50
Precious Metals (PM London Fix)			
Gold		1759.35	14.60
Silver (US cents)		2148.00	39.00
Platinum		1040.00	22.00
Palladium		2032.00	139.00
Bulk Commodities			
Iron Ore		90.79	2.60
Baltic Dry Index		1325.00	-30.00
Richards Bay ICE Futures		184.35	0.50

Agricultural & Cattle Futures		Price*	Change
Corn♦	Dec	655.50	-2.50
Wheat♦	Dec	811.50	-2.25
Soybeans♦	Jan	1444.00	-6.00
Soybeans Meal♦	Dec	409.70	2.30
Cocoa (ICE Liffe)✠	Dec	2000.00	-13.00
Cocoa (ICE US)♥	Dec	2503.00	-17.00
Coffee(Robusta)✠	Nov	1831.00	-21.00
Coffee (Arabica)♥	Dec	163.85	-6.25
White Sugar✠		538.70	0.00
Sugar 11♥		19.62	-0.02
Cotton♥	Dec	86.01	-2.19
Orange Juice♥	Jan	200.10	-3.20
Live Cattle♣	Dec	151.83	-1.25
Feeder Cattle♣	May	134.88	-
Lean Hogs♣	Dec	84.28	-0.60

	Nov 11	% Chg Month	% Chg Year
S&P GSCI Spt	642.36	1.59	10.75
DJ UBS Spot	117.47	3.31	14.23
TR/CC CRB TR	308.26	-1.36	30.58
LEBA EUA Carbon	58.91	-1.98	129.94
LEBA UK Power	1048.00	-37.43	-39.60

Sources: † NYMEX, ‡ ECX/ICE, ♦ CBOT, ✠ ICE Liffe, ♥ ICE Futures, ♣ CME, ♠ LME/London Metal Exchange.* Latest prices, $ unless otherwise stated.

BONDS: INDEX-LINKED

	Price Nov 11	Yield Nov 11	Yield Prev	Month return	Value stock	Market	No of stocks
Can 4.25%' 26	111.63	1.289	1.290	0.49	5.25	72730.62	8
Fr 0.25%' 24	103.35	-1.675	-1.799	0.47	17.92	250718.95	17
Swe 1.00%' 25	125.36	-0.441	-0.506	0.70	35.38	218051.75	6
UK 0.125%' 24	104.81	-3.307	-3.450	0.51	15.24	598839.74	31
UK 2.50%' 24	379.54	-2.296	-2.406	0.69	6.82	598839.74	31
UK 2.00%' 35	251.61	-0.233	-0.294	4.78	9.08	598839.74	31
US 0.625%' 24	98.25	2.142	2.139	-0.01	40.98	1599885.81	47
US 3.625%' 28	110.17	1.657	1.658	0.77	16.78	1599885.81	47

Representative stocks from each major market Source: Merill Lynch Global Bond Indices † Local currencies. ‡ Total market value. In line with market convention, for UK Gilts inflation factor is applied to price, for other markets it is applied to par amount.

BONDS: TEN YEAR GOVT SPREADS

	Bid Yield	Spread vs Bund	Spread vs T-Bonds		Bid Yield	Spread vs Bund	Spread vs T-Bonds
Australia	3.65	1.56	-0.21	Netherlands	2.22	0.13	-1.64
Austria	2.61	0.53	-1.25	New Zealand	4.19	2.10	0.33
Canada	3.14	1.05	-0.72	Norway	3.36	1.27	-0.50
Denmark	2.39	0.30	-1.47	Portugal	2.50	0.41	-1.36
Finland	2.69	0.60	-1.17	Spain	2.85	0.76	-1.01
Germany	2.09	0.00	-1.77	Sweden	-0.15	-2.24	-4.01
Italy	1.61	-0.48	-2.25	Switzerland	0.94	-1.15	-2.92
Japan	0.15	-1.94	-3.71	United States	3.86	1.77	0.00

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company.

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MORNINGSTAR®

MANAGED FUNDS SERVICE

abrdn Capital (CI) Limited (JER)
PO Box 189, St Helier, Jersey, JE4 9RU 01534 709130
FCA Recognised
abrdn Capital Offshore Strategy Fund Limited

Fund	Bid	Offer	D+/-	Yield
Bridge Fund	£ 2.1992	-	0.0024	1.89
Global Equity Fund	£ 3.2950	-	0.0123	1.19
Global Fixed Interest Fund	£ 0.7270	-	0.0037	6.20
Income Fund	£ 0.6336	-	0.0006	3.31
Sterling Fixed Interest Fund	£ 0.6769	-	0.0023	3.68
UK Equity Fund	£ 1.9493	-	-0.0147	3.86

Algebris Investments (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
Algebris Financial Credit I EUR	€ 168.03	-	1.86	-
Algebris Financial Credit R EUR	€ 144.63	-	1.60	-
Algebris Financial Credit Rd EUR	€ 88.49	-	0.98	-
Algebris Financial Income I EUR	€ 174.35	-	1.36	0.00
Algebris Financial Income R EUR	€ 158.75	-	1.24	0.00
Algebris Financial Income Rd EUR	€ 97.30	-	0.77	4.41
Algebris Financial Equity B EUR	€ 158.55	-	0.73	0.00
Algebris Financial Equity R EUR	€ 133.43	-	0.62	0.00
Algebris IG Financial Credit I EUR	€ 92.80	-	0.41	-
Algebris IG Financial Credit R EUR	€ 91.41	-	0.41	-
Algebris Global Credit Opportunities I EUR	€ 121.95	-	0.95	-
Algebris Global Credit Opportunities R EUR	€ 119.08	-	0.92	-
Algebris Global Credit Opportunities Rd EUR	€ 104.68	-	0.81	-
Algebris Core Italy I EUR	€ 141.69	-	1.40	0.00
Algebris Core Italy R EUR	€ 134.57	-	1.33	0.00

The Antares European Fund Limited
Other International

Fund	Bid	Offer	D+/-	Yield
AEF Ltd Usd	$ 570.82	-	-8.81	0.00
AEF Ltd Eur	€ 526.30	-	-8.16	0.00

Artemis Fund Managers Ltd (1200)F (UK)
57 St. James's Street, London SW1A 1LD 0800 092 2051
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
Artemis Corporate Bond I Acc	96.34	-	1.18	3.02
Artemis Positive Future Fund	69.58	-	3.92	0.00
Artemis Target Return Bond I Acc	103.56	-	0.55	2.84

Ashmore Group
61 Aldwych, London WC2B 4AE. Dealing team: +352 27 62 22 233
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
Emerging Markets Equity Fund	$ 111.85	-	4.39	0.00
Emerging Markets Equity ESG Fund	$ 126.13	-	4.72	0.00
Emerging Markets Frontier Equity Fund	$ 177.27	-	1.19	0.40
Emerging Markets Blended Debt Fund	$ 50.06	-	0.65	6.88
Emerging Markets Blended Debt ESG Fund	$ 80.14	-	0.95	0.00
Emerging Markets Active Equity Fund	$ 109.98	-	1.49	0.00
Emerging Markets Corporate Debt Fund	$ 56.24	-	0.32	9.89
Emerging Markets Debt Fund	$ 54.25	-	0.68	8.44
Emerging Markets Local Currency Bond Fund	$ 58.74	-	0.81	4.44

Atlantas Sicav (LUX)
Regulated

Fund	Bid	Offer	D+/-	Yield
American Dynamic	$ 6093.94	-	-135.12	0.00
American One	$ 6269.97	-	-150.13	0.00
Bond Global	€ 1581.48	1581.48	10.04	0.00
Eurocroissance	€ 1249.99	-	-2.22	0.00
Far East	$ 885.62	-	31.25	-

Blue Whale Investment Funds ICAV (IRE)
www.bluewhale.co.uk, info@bluewhale.co.uk
FCA Recognised - Ireland UCITS

Fund	Bid	Offer	D+/-	Yield
Blue Whale Growth USD T	$ 8.91	-	0.07	0.00

Brooks Macdonald International Fund Managers Limited (JER)
5 Anley Street, St Helier, Jersey, JE2 3QE
+44 (0) 1534 700 104 (Int.) +44 (0) 800 735 8000 (UK)
Brooks Macdonald International Investment Funds Limited

Fund	Bid	Offer	D+/-	Yield
Euro High Income	€ 1.2138	-	-0.0014	2.50
High Income	£ 0.6505	-	0.0013	3.77
Sterling Bond	£ 1.2375	-	0.0023	2.06

Brooks Macdonald International Multi Strategy Fund Limited

Fund	Bid	Offer	D+/-	Yield
Balanced Strategy A	£ 0.9118	-	0.0109	0.60
Balanced Strategy	£ 0.9112	-	0.0108	0.09
Cautious Balanced Strategy A	£ 0.8838	-	0.0074	1.16
Growth Strategy A	£ 0.9200	-	0.0135	0.52
High Growth Strategy A	£ 0.9184	-	0.0157	0.13
Cautious Balanced Strategy	£ 1.2363	-	0.0103	0.00
Growth Strategy	£ 1.9257	-	0.0282	0.00
High Growth Strategy	£ 2.6942	-	0.0459	0.00
US$ Growth Strategy	$ 1.6262	-	0.0444	0.00

Dealing Daily. Initial Charge Nil for A classes and up to 2% for other classes

CG Asset Management Limited (IRL)
25 Moorgate, London, EC2R 6AY
Dealing: Tel. +353 1434 5098 Fax. +353 1542 2859
FCA Recognised
CG Portfolio Fund Plc

Fund	Bid	Offer	D+/-	Yield
Absolute Return Cls M Inc	£ 136.87	136.87	0.09	1.36
Capital Gearing Portfolio GBP P	£ 37731.46	37731.46	49.24	1.05
Capital Gearing Portfolio GBP V	£ 183.51	183.51	0.24	1.05
Dollar Fund Cls D Inc	£ 170.37	170.37	-0.77	1.42
Dollar Hedged GBP Inc	£ 92.42	92.42	1.90	1.71
Real Return Cls A Inc	£ 204.31	204.31	-0.53	1.46

Chartered Asset Management Pte Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
CAM-GTF VCC	$ 276934.95	276934.95	-141.90	-
CAM GTi VCC	$ 780.49	-	-32.39	-
RAIC VCC	$ 1.64	1.64	0.03	2.06

Dodge & Cox Worldwide Funds (IRL)
48-49 Pall Mall, London SW1Y 5JG.
www.dodgeandcox.worldwide.com 020 3713 7664
FCA Recognised
Dodge & Cox Worldwide Funds plc - Global Bond Fund

Fund	Bid	Offer	D+/-	Yield
EUR Accumulating Class	€ 15.63	-	-0.17	0.00
EUR Accumulating Class (H)	€ 10.09	-	0.04	-
EUR Distributing Class	€ 11.46	-	-0.12	0.96
EUR Distributing Class (H)	€ 7.34	-	0.04	-
GBP Distributing Class	£ 12.28	-	-0.07	0.87
GBP Distributing Class (H)	£ 7.84	-	0.03	1.16
USD Accumulating Class	$ 11.68	-	0.06	0.00

Dodge & Cox Worldwide Funds plc-Global Stock Fund

Fund	Bid	Offer	D+/-	Yield
USD Accumulating Share Class	$ 28.11	-	0.50	-
GBP Accumulating Share Class	£ 39.05	-	0.28	0.00
GBP Distributing Share class	£ 26.35	-	0.19	-
EUR Accumulating Share Class	€ 40.76	-	0.10	-
GBP Distributing Class (H)	£ 13.07	-	0.23	0.57

Dodge & Cox Worldwide Funds plc-U.S. Stock Fund

Fund	Bid	Offer	D+/-	Yield
USD Accumulating Share Class	$ 38.40	-	0.38	0.00
GBP Accumulating Share Class	£ 50.44	-	-0.05	-
GBP Distributing Share Class	£ 30.28	-	-0.03	0.16
EUR Accumulating Share Class	€ 48.08	-	-0.27	0.00
GBP Distributing Class (H)	£ 15.27	-	0.14	0.20

Dragon Capital
www.dragoncapital.com
Fund information:info@dragoncapital.com
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Vietnam Equity (UCITS) Fund A USD	$ 21.38	-	-0.66	0.00

EdenTree Investment Management Ltd (UK)
PO Box 3733, Swindon, SN4 4BG, 0800 358 3010
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
EdenTree Short Dated Bond Cls B	92.94	-	0.08	-

Euronova Asset Management UK LLP (CYM)
Regulated

Fund	Bid	Offer	D+/-	Yield
Smaller Cos Cls One Shares	€ 50.93	-	-0.11	0.00
Smaller Cos Cls Two Shares	€ 32.52	-	-0.08	0.00
Smaller Cos Cls Three Shares	€ 16.23	-	-0.04	0.00
Smaller Cos Cls Four Shares	€ 21.39	-	-0.05	0.00

Fidelity Investments International
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Emerging Mkts NAV	£ 7.21	-	-0.16	2.07

FIL Investment Services (UK) Limited (1200)F (UK)
Beech Gate, Millfield Lane, Lower Kingswood, Tadworth, KT20 6RP
Callfree: Private Clients 0800 414161
Broker Dealings: 0800 414 181
OEIC Funds

Fund	Bid	Offer	D+/-	Yield
Index Sterling Corporate Bond Fund P-ACC-GBP	£ 0.82	-	0.00	2.03
Sustainable Multi Asset Balanced Fund W-ACC-GBP	£ 0.92	-	0.00	0.15
American Fund W-ACC-GBP	£ 53.17	-	0.17	0.00
Cash Fund W-ACC-GBP	£ 1.02	-	0.00	0.00
Emerg Europe, Middle East and Africa Fund W-ACC-GBP	£ 1.67	-	0.00	4.94
Sustainable Global Equity Fund W-ACC-GBP	£ 33.38	-	0.03	0.00
Global High Yield Fund W-ACC-GBP	£ 13.26	-	0.04	5.84
Japan Fund W-ACC-GBP	£ 5.50	-	-0.09	-
Japan Smaller Companies Fund W-ACC-GBP	£ 3.49	-	-0.02	0.64
Select 50 Balanced Fund PI-ACC-GBP	£ 1.13	-	0.01	1.04
Special Situations Fund W-ACC-GBP	£ 41.98	-	-0.44	2.08
Short Dated Corporate Bond Fund W-ACC-GBP	£ 10.36	-	0.01	-
Sustainable Water & Waste W-ACC-GBP	£ 1.14	-	0.01	0.15
Sustainable Water & Waste W-INC-GBP	£ 1.13	-	0.01	0.15
UK Select Fund W-ACC-GBP	£ 3.60	-	0.01	2.13
Global Enhanced Income W-ACC-GBP	£ 2.31	-	0.00	4.29
Index UK Gilt Fund P-ACC-GBP	£ 0.77	-	0.01	0.59
Sustainable Multi Asset Conservative Fund W-ACC-GBP	£ 0.89	-	0.00	0.16
Sustainable Multi Asset Growth Fund W-ACC-GBP	£ 0.95	-	0.00	0.08

Findlay Park Funds Plc (IRL)
30 Herbert Street, Dublin 2, Ireland Tel: 020 7968 4900
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
American EUR Unhedged Class	€ 157.15	-	-1.06	0.00
American Fund USD Class	$ 162.28	-	1.20	0.00
American Fund GBP Hedged	£ 79.81	-	0.56	0.00
American Fund GBP Unhedged	£ 137.78	-	-0.13	0.00

Foord Asset Management
Website: www.foord.com - Email: info@foord.com
FCA Recognised - Luxembourg UCITS

Fund	Bid	Offer	D+/-	Yield
Foord International Fund | R	$ 47.99	-	0.43	0.00
Foord Global Equity Fund (Lux) | R	$ 15.29	-	0.47	0.00

Regulated

Fund	Bid	Offer	D+/-	Yield
Foord Global Equity Fund (Sing) | B	$ 18.21	-	0.57	0.00
Foord International Trust (Gsy)	$ 46.78	-	0.43	0.00

GAM
funds@gam.com, www.funds.gam.com
Regulated

Fund	Bid	Offer	D+/-	Yield
LAPIS GBL TOP 50 DIV.YLD-Na-D	£ 130.30	-	-0.05	-
LAPIS GBL F OWD 50 DIV.YLD-Na-D	£ 102.25	-	2.74	-

Guinness Global Investors

Fund	Bid	Offer	D+/-	Yield
Guinness Global Equity Income Y GBP Dist	£ 18.96	-	-0.03	2.34
Guinness Global Innovators Y GBP Acc	£ 25.83	-	0.37	0.00
Guinness Sustainable Global Equity Y GBP Acc	£ 11.51	-	0.12	0.00

HPB Assurance Ltd
Anglo Intl House, Bank Hill, Douglas, Isle of Man, IM1 4LN 01638 563490
International Insurances

Fund	Bid	Offer	D+/-	Yield
Holiday Property Bond Ser 1	£ 0.48	-	0.00	0.00
Holiday Property Bond Ser 2	£ 0.63	-	0.00	0.00

Janus Henderson Investors (UK)
PO Box 9023, Chelmsford, CM99 2WB Enquiries: 0800 832 832
www.janushenderson.com
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
Janus Henderson Instl UK Idx Opps A Acc	£ 1.10	-	0.00	3.13

M & G Securities (1200)F (UK)
PO Box 9038, Chelmsford, CM99 2XF
www.mandg.co.uk/charities Enq./Dealing: 0800 917 4472
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
M&G Charibond Charities Fixed Interest Fund (Charibond) Inc	£ 1.09	-	0.00	2.03
M&G Charibond Charities Fixed Interest Fund (Charibond) Acc	£ 38.93	-	0.09	1.62
M&G Charity Multi Asset Fund Inc	£ 0.88	-	0.00	3.89
M&G Charity Multi Asset Fund Acc	£ 104.98	-	-0.16	3.74

MMIP Investment Management Limited (GSY)
Regulated
Multi-Manager Investment Programmes PCC Limited

Fund	Bid	Offer	D+/-	Yield
UK Equity Fd Cl A Series 01	£ 2667.84	2697.24	-305.31	0.00
Diversified Absolute Rtn Fd USD Cl AF2	$ 1583.93	-	-51.35	0.00
Diversified Absolute Return Stlg Cell AF2	£ 1468.42	-	-51.93	0.00
Global Equity Fund A Lead Series	£ 1653.91	1659.58	-103.61	-

Marwyn Asset Management Limited (CYM)
Regulated

Fund	Bid	Offer	D+/-	Yield
Marwyn Value Investors	£ 329.72	-	-6.14	0.00

Milltrust International Managed Investments ICAV (IRL)
mimi@milltrust.com, +44(0)20 8123 8316 www.milltrust.com
Regulated

Fund	Bid	Offer	D+/-	Yield
British Innovation Fund	£ 121.92	-	2.89	0.00
MAI - Buy & Lease (Australia)	A$ 103.45	-	0.50	0.00
MAI - Buy & Lease (New Zealand)	NZ$ 91.20	-	-6.06	0.00
Milltrust Global Emerging Markets Fund - Class A	$ 86.71	-	-0.82	0.00

Milltrust International Managed Investments SPC
em@milltrust.com, +44(0)20 8123 8316, www.milltrust.com
Regulated

Fund	Bid	Offer	D+/-	Yield
Milltrust Alaska Brazil SP A	$ 77.49	-	-5.12	0.00
Milltrust Laurium Africa SP A	$ 100.99	-	2.09	0.00
Milltrust Marcellus India Fund	$ 127.34	-	-1.86	0.00
Milltrust Singular ASEAN SP Founders	$ 128.62	-	1.40	0.00
Milltrust SPARX Korea Equity SP A	$ 103.26	-	6.33	0.00
Milltrust Xingtai China SP A	$ 84.03	-	-1.41	0.00
The Climate Impact Asia Fund SP (Class A)	$ 76.38	-	2.82	0.00
The Climate Impact Asia Fund (Class B)	$ 75.80	-	2.80	0.00

Mirabaud Asset Management (LUX)
www.mirabaud.com, marketing@mirabaud-am.com
Conviction based investment vehicles details available here www.mirabaud-am.com
Regulated

Fund	Bid	Offer	D+/-	Yield
Mir. - Glb Strat. Bd I USD	$ 111.74	-	1.42	-
Mir. - DiscEur D Cap GBP	£ 163.29	-	1.95	0.00
Mirabaud - UK Equity High Alpha	£ 139.81	-	1.10	0.00

Oasis Crescent Global Investment Funds (UK) ICVC (UK)
Regulated

Fund	Bid	Offer	D+/-	Yield
Oasis Crescent Global Equity Fund USD A (Dist)	$ 34.28	-	0.35	0.25
Oasis Crescent Global Income Fund USD A (Dist)	$ 9.87	-	0.01	2.74
Oasis Crescent Global Low Equity Fund USD D (Dist)	$ 12.11	-	0.07	0.62
Oasis Crescent Global Medium Equity Fund USD A (Dist)	$ 13.44	-	0.10	0.15
Oasis Crescent Global Property Equity Fund USD A (Dist)	$ 7.84	-	0.08	0.98
Oasis Crescent Global Short Term Income Fund USD A (Dist)	$ 0.93	-	0.00	1.87
Oasis Crescent Variable Fund GBP A (Dist)	£ 9.77	-	0.03	0.18

Omnia Fund Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Estimated NAV	$ 946.10	-	-9.48	0.00

Orbis Investments (U.K.) Limited (GBR)
28 Dorset Square, London, NW1 6QG
www.orbis.com 0800 358 2030
Regulated

Fund	Bid	Offer	D+/-	Yield
Orbis OEIC Global Cautious Standard	£ 11.77	-	0.01	0.00
Orbis OEIC Global Balanced Standard	£ 19.20	-	0.08	-
Orbis OEIC Global Equity Standard	£ 21.63	-	0.02	1.99
Orbis OEIC UK Equity Standard	£ 11.08	-	0.09	3.45

Platinum Capital Management Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Platinum All Star Fund - A	$ 143.77	-	-	-
Platinum Global Growth UCITS Fund	$ 8.25	-	0.46	0.00
Platinum Essential Resources UCITS Fund SICAV USD Class E	$ 11.67	-	0.28	0.00
Platinum Global Dividend UCITS Fund	$ 48.12	-	1.90	0.00

Polar Capital Funds Plc (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
Automation & Artificial Intelligence CL I USD Acc	$ 14.49	14.49	0.46	0.00
Asian Starts I USD Acc $	$ 13.51	-	0.91	0.00
Biotechnology I USD	$ 37.52	37.52	-0.19	0.00
China Stars I USD Acc $	$ 9.97	9.97	0.66	0.00
Emerging Market Stars I USD Acc	$ 10.84	-	0.65	0.00
European Ex UK Inc EUR Acc	€ 13.80	13.80	-0.09	-
Financial Opps I USD	$ 13.76	-	0.20	2.74
Global Convertible I USD	$ 13.52	13.52	0.28	0.00
Global Insurance I GBP	£ 10.03	-	-0.21	0.00
Global Technology I USD	$ 63.08	-	2.04	0.00
Healthcare Blue Chip Fund I USD Acc	$ 17.82	17.82	-0.24	0.00
Healthcare Dis I Acc USD $	$ 11.90	-	0.20	-
Healthcare Opps I USD	$ 62.75	-	2.37	-
Income Opportunities B2 I GBP Acc	£ 2.90	2.90	0.00	0.00
Japan Value I JPY	¥ 138.92	138.92	-1.74	0.00
North American I USD	$ 32.74	32.74	0.33	0.00
Smart Energy I USD Acc $	$ 9.13	9.13	0.22	0.00
Smart Mobility I USD Acc $	$ 8.69	8.69	0.27	0.00
UK Val Opp I GBP Acc	£ 11.95	11.95	-0.04	0.00

Private Fund Mgrs (Guernsey) Ltd (GSY)
Regulated

Fund	Bid	Offer	D+/-	Yield
Monument Growth 01/11/2022	£ 529.17	534.35	-0.67	1.11

Prusik Investment Management LLP (IRL)
Enquiries - 0207 493 1331
Regulated

Fund	Bid	Offer	D+/-	Yield
Prusik Asian Equity Income B Dist	$ 170.91	-	1.34	5.08
Prusik Asia Emerging Opportunities Fund A Acc	$ 179.52	-	0.07	0.00
Prusik Asia Fund U Dist.	£ 211.72	-	-1.14	0.00
Prusik Asia Sustainable Growth Fund A Acc	$ 86.02	-	-0.24	-

Purisima Investment Fds (CI) Ltd (JER)
Regulated

Fund	Bid	Offer	D+/-	Yield
PCG B ✠	275.70	-	10.80	0.00
PCG C ✠	268.26	-	10.50	0.00

Ram Active Investments SA
www.ram-ai.com
Other International Funds

Fund	Bid	Offer	D+/-	Yield
RAM Systematic Emerg Markets Eq	$ 204.21	204.21	6.74	-
RAM Systematic European Eq	€ 506.24	506.24	-3.52	-
RAM Systematic Funds Global Sustainable Income Eq	$ 146.73	146.73	-0.33	0.00
RAM Systematic Global Eq Sustainable Alpha	$ 107.49	107.49	-1.47	-
RAM Systematic Long/Short European Eq	€ 145.50	145.50	-4.43	-
RAM Systematic US Sustainable Eq	$ 343.81	343.81	2.28	-
RAM Tactical Global Bond Total Return	€ 137.14	137.14	-0.07	-
RAM Tactical II Asia Bond Total Return	$ 138.27	138.27	0.26	-

Ruffer LLP (1000)F (UK)
65 Gresham Street, London, EC2V 7NQ
Order Desk and Enquiries: 0345 601 9610
Authorised Inv Funds
Authorised Corporate Director - Link Fund Solutions

Fund	Bid	Offer	D+/-	Yield
LF Ruffer Diversified Rtrn C Acc	106.31	-	0.32	0.85
LF Ruffer Diversified Rtrn C Inc	105.42	-	0.32	0.94
LF Ruffer European C Acc	739.72	-	14.83	0.85
LF Ruffer European C Inc	132.70	-	2.66	0.91
LF Ruffer European O Acc	717.28	-	14.34	0.55
LF Ruffer Equity & General C Acc	556.47	-	6.37	0.78
LF Ruffer Equity & General C Inc	502.75	-	5.76	0.79
LF Ruffer Equity & General O Acc	539.64	-	6.15	0.47
LF Ruffer Equity & General O Inc	496.54	-	5.66	0.48
LF Ruffer Gold C Acc	222.04	-	16.12	0.00
LF Ruffer Gold C Inc	134.39	-	9.76	0.00
LF Ruffer Gold O Acc	215.24	-	15.62	0.00
LF Ruffer Japanese C Inc	156.56	-	2.96	0.26
LF Ruffer Japanese C Acc	337.29	-	6.37	0.25
LF Ruffer Total Return C Acc	561.26	-	-2.55	2.45
LF Ruffer Total Return C Inc	350.04	-	-1.58	2.50
LF Ruffer Total Return O Acc	544.22	-	-2.50	2.46
LF Ruffer Total Return O Inc	339.21	-	-1.56	2.51

Rubrics Global UCITS Funds Plc (IRL)
www.rubricsam.com
Regulated

Fund	Bid	Offer	D+/-	Yield
Rubrics Emerging Markets Fixed Income UCITS Fund	$ 132.21	-	0.61	-
Rubrics Global Credit UCITS Fund	$ 16.39	-	0.03	0.00
Rubrics Global Fixed Income UCITS Fund	$ 167.69	-	-0.04	0.00

Slater Investments Ltd (UK)
www.slaterinvestments.com; Tel: 0207 220 9460
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Slater Growth A Acc	652.98	652.98	2.49	0.00
Slater Income A Inc	138.66	138.66	-0.62	5.22
Slater Recovery A Acc	336.63	336.63	-0.37	0.00
Slater Artorius	290.07	290.07	3.80	0.32

Stonehage Fleming Investment Management Ltd (IRL)
www.stonehagefleming.com/gbi
enquiries@stonehagefleming.com
Regulated

Fund	Bid	Offer	D+/-	Yield
SF Global Best Ideas Eq B USD ACC	$ 216.81	-	4.58	-
SF Global Best Ideas Eq D GBP INC	£ 279.29	-	3.60	-

Superfund Asset Management GmbH
www.superfund.com, +43 (1) 247 00
Other International Funds
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Superfund Green Gold	$ 1241.82	-	26.04	0.00
Superfund Green Silver	$ 1070.93	-	11.01	0.00

Regulated

Fund	Bid	Offer	D+/-	Yield
Superfund Green US$	$ 991.19	-	11.83	0.00

Toscafund Asset Management LLP (UK)
www.toscafund.com
Authorised Funds

Fund	Bid	Offer	D+/-	Yield
Aptus Global Financials B Acc	£ 4.72	-	0.02	4.36
Aptus Global Financials B Inc	£ 3.05	-	0.01	4.51

Toscafund Asset Management LLP
www.toscafund.com

Fund	Bid	Offer	D+/-	Yield
Tosca A USD	$ 406.01	-	8.84	0.00
Tosca Mid Cap GBP	£ 170.45	-	1.07	0.00
Tosca Opportunity B USD	$ 261.12	-	2.32	0.00
Pegasus Fund Ltd A-1 GBP	£ 40.62	-	0.28	0.00

Troy Asset Mgt (1200) (UK)
65 Gresham Street, London, EC2V 7NQ
Order Desk and Enquiries: 0345 608 0950
Authorised Inv Funds
Authorised Corporate Director - Link Fund Solutions
Trojan Investment Funds

Fund	Bid	Offer	D+/-	Yield
Trojan Ethical O Acc	125.16	-	0.15	0.00
Trojan Ethical Global Inc O Acc	101.76	-	-0.31	-
Trojan Ethical Global Inc O Inc	99.24	-	-0.29	-
Trojan Ethical O Inc	124.91	-	0.15	0.00

Zadig Gestion (Memnon Fund) (LUX)
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Memnon European Fund - Class U2 GBP	£ 241.21	-	2.56	0.00

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www.morningstar.co.uk

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Guide to pricing of Authorised Investment Funds: (compiled with the assistance of the IMA. The Investment Association, Camomile Court 23 Camomile Street, London EC3A 7LL. Tel: +44 (0)20 7831 0898.)

OEIC: Open-Ended Investment Company. Similar to a unit trust but using a company rather than a trust structure.

Different share classes are issued to reflect a different currency, charging structure or type of holder.

Selling price: Also called bid price. The price at which units in a unit trust are sold by investors.

Buying price: Also called offer price. The price at which units in a unit trust are bought by investors. Includes manager's initial charge.

Single price: Based on a mid-market valuation of the underlying investments. The buying and selling price for shares of an OEIC and units of a single priced unit trust are the same.

Treatment of manager's periodic capital charge: The letter C denotes that the trust deducts all or part of the manager's/operator's periodic charge from capital, contact the manager/operator for full details of the effect of this course of action.

Exit Charges: The letter E denotes that an exit charge may be made when you sell units, contact the manager/operator for full details.

Time: Some funds give information about the timing of price quotes. The time shown alongside the fund manager's/operator's name is the valuation point for their unit trusts/OEICs, unless another time is indicated by the symbol alongside the individual unit trust/OEIC name.

The symbols are as follows: ✠ 0001 to 1100 hours; ◆ 1101 to 1400 hours; ▲ 1401 to 1700 hours; # 1701 to midnight. Daily dealing prices are set on the basis of the valuation point, a short period of time may elapse before prices become available. Historic pricing: The letter H denotes that the managers/operators will normally deal on the price set at the most recent valuation. The prices shown are the latest available before publication and may not be the current dealing levels because of an intervening portfolio revaluation or a switch to a forward pricing basis. The managers/operators must deal at a forward price on request, and may move to forward pricing at any time. Forward pricing: The letter F denotes that that managers/operators deal at the price to be set at the next valuation.

Investors can be given no definite price in advance of the purchase or sale being carried out. The prices appearing in the newspaper are the most recent provided by the managers/operators. Scheme particulars, prospectus, key features and reports: The most recent particulars and documents may be obtained free of charge from fund managers/operators. * Indicates funds which do not price on Fridays.

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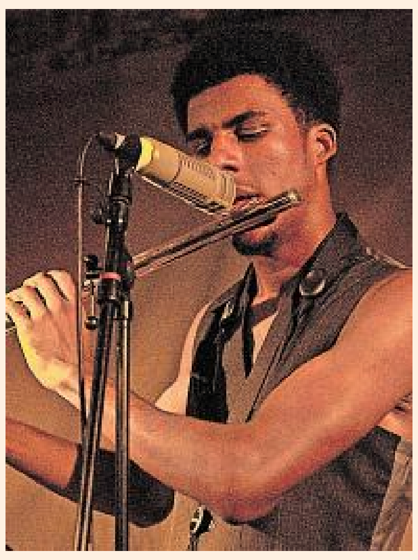
ARTS

Sounds of a city in full swing

London Jazz Festival's opening weekend had ebullient stagecraft, expert percussion and big-band soul. Mike Hobart reports



Main: Marisha Wallace singing at the sold-out Jazz Voice gala at the Royal Festival Hall. Above: Xhosa Cole playing at Cafe Oto — Roger Thomas

The 30th EFG London Jazz Festival has returned to its pre-lockdown pomp with a sprawl of more than 300 gigs. Venues have so far ranged from the capital's network of concert halls to Fireworks Factory in the city's far south-east. The opening night gala, Jazz Voice, presented its eclectic mix of vocalists to an enthusiastic full house at the Southbank's Royal Festival Hall. Jazz, represented by the technically astute Kurt Elling and Ian Shaw, was in the mix; so too were soul, blues and lovers' rock. Singer Shingai's ebullient indie stagecraft found its equal in Marisha Wallace's Broadway presence.

Previous Jazz Voice galas based their sweep of vocal stylists on themed selections of the American songbook. This year, conductor/arranger Guy Barker's Festival Orchestra played to each vocalist's strength and played blues shuffles and the snapped rimshots of soul alongside powerhouse big-band brass and smoothing string glides.

Each singer got two songs, one for each set. Ian Shaw opened the evening with the songbook classic "Small Day Tomorrow". Shaw swooped from low to high and the orchestra was punchy and swung. Soul came next, with imperious big-band rhythm and blues and Dana Masters soaring sensuously on "Satisfied".

Later, the reggae lilt of "Perfidia" lost its bounce but, elsewhere, supple orchestral dynamics and powerful beats in a range of styles gripped.

Both Elling and Shingai delivered highlights of vocal power, technical excellence and narrative control — Shingai with the climactic slow burn "Coming Home" and Elling with a flawless version of his collaboration with Carla Bley, "Endless Lawns". It ended with an eerie falsetto fade that tingled the spine.

The finale was "And I Am Telling You I'm Not Going" from the musical *Dreamgirls*. Marisha Wallace sang it with a soul-inflected operatic power that raised the house. The ovation was immediate, and the encore of Aretha Franklin's "Think" presented each singer in turn. Not a note seemed out of place. ★★★★☆

Saturday's Barbican concert, billed as Chicago x London, promised a night of one-off collaborations, bringing together the musical and spiritual connections of the two cities' jazz scenes. What we actually got was two solid acts from Chicago before the break and two one-off ensembles with a UK base after.

> Marisha Wallace sang the finale with a soul-inflected operatic power that raised the house

The evening started well enough with a technically astute, effects-laden solo performance from guitarist Jeff Parker. Lead lines sparkled, his sampled bass lines added depth, and shimmers of guitar harmonies filled the hall with mystery and suspense.

Parker's guitar tone melded jazz fluency with a hint of country twang, original material was well put together and there was an acerbic reading of the standard "My Ideal".

A quartet came next, led by multi-instrumentalist Ben LaMar Gay, based on his album *Open Arms to Open Us*. Laden with sharp rhythms, folkloric melodies, whistles, flutes and bells, the band sit firmly in Chicago's avant-garde. Foghorn blasts of Matt Davis's sousaphone and Gay's spiky pinched trumpet stabs brought power while muted trumpet doodles created passages of calm. An episode of handbell trickery by three of the band was pure magic.

Overblown: poet and saxophonist Alabaster DePlume — Roger Thomas

Vocalist/multi-instrumentalist Angel Bat Dawid offered left-field continuity after the break. She orchestrated her special-event quartet playing Sun Ra-like keyboard, burst into punk-energy song and was adept on both clarinet and soprano sax. Theon Cross punched out tuba riffs, alto saxophonist Cassie Kinoshi delivered phonic abstraction and powerful beats ranged from a funeral dirge to upbeat funk and a waltz.

An overblown set from poet/saxophonist Alabaster DePlume concluded the evening. Harmonised band vocals in the falsetto range, two drummers and a talented line-up promised much. But it was DePlume's trite spoken word, weak vibrato-laden sax and shouty swearing that dominated. No time for a jam, and at over three hours, the event was already too long.

Earlier in the evening, a tribute to the late trumpeter Jaimie Branch was shown on the hall's video screen. Branch died in August and was scheduled to appear on tonight's bill. It showed her working up music with local musicians and playing with fire alongside cellist Tomeka Reid. It was a reminder of what the event promised, but turned out not to be. ★★★☆☆

British saxophonist Xhosa Cole's Sunday gig at Cafe Oto was based on his recent Stoney Lane release *Ibeji*. The album presents Cole in a series of duos with seven percussionists and adds his collaborators' musings on the roots of rhythm, the African diaspora and more besides. Here, the voices were doctored and rhythmically chopped and the duos replaced by a single quartet. Trumpeter Byron Wallen joined Cole in the front line and drummer Hamid Drake and percussionist Yahael Camara Onono constructed a complex rhythmic web. A fascinating album was brilliantly recast into a focused live gig that gripped the audience for two uninterrupted sets.

The event began with the sound of a beating heart and a recorded voice expounding on rhythm and life. Bells tinkled, words were distorted, repeated and cut in two and the percussionists whumped simultaneously, swapped phrases and throbbed underneath.

Wallen was the first to solo, delivering controlled lyricism with a rounded tone. The beat became funky, there was a duet of flutes and then Cole's long, angular lines on tenor sax with assurance and poise.

Both sets were constructed as a series of musical tableaux linked to an organic whole. Cole and Wallen's multi-instrumental skills added sonic variety — they stretch from conch and percussion to flutes and African thumb piano — and the young saxophonist manipulated his recorded voices with a producer's skill. No lulls on the night, and the detailed interplay were outstanding. That said, Cole's unaccompanied sax effortlessly moving from sub-tone harmonics to high-note sustains was a high, as was Wallen's breathy lyricism on muted trumpet.

The two percussionists' tight weave of rhythm, crowd-raising dynamics and simultaneous thumps were even more remarkable, considering they had only just met. ★★★★☆

To November 20, efglondonjazzfestival.org.uk

Vocalist/multi-instrumentalist Angel Bat Dawid — Roger Thomas

A pop-rap arena star in the making

POP

Lil Nas X
Hammersmith Apollo, London
★★★☆☆

Ludovic Hunter-Tilney

"I want someone to love me," Lil Nas X cried out at the Hammersmith Apollo: "I need someone who needs me." The song was "Thats What I Want", a breezy hit that casts a covetous glance at OutKast's 2003 single "Hey Ya!". Its originality lies in the identity of the person who the US pop-rapper wants to love him, "an afro black boy with the gold teeth". The song's rendition ended with him and one of his male backing dancers getting moon-eyed with each other as the stage curtains swished shut. The pair were silhouetted by back-lighting in a passionate clinch. Cue cheers and whoops from a packed house.

Although same-sex desire is no stranger to the US charts and black American pop — witness Little Richard's "Tutti Frutti", a foundation stone of rock and roll — it is a love whose name is spoken with unusual daring by Lil Nas X. Those who dismissed him as a novelty one-hit wonder following the runaway success of his country-rap crossover "Old Town Road" in 2019 have been forced to eat their words. Like the drum fanfare that greeted his entrance at the Apollo, his name now comes prefaced with weighty accolades.

The 23-year-old, aka Montero Lamar Hill, has been variously acclaimed as a "visionary", an "LGBTQ icon", a "boundary-smashing pop revolutionary". He has become a symbol of progress and tolerance.

His one-off London show came during his first tour of the US and Europe. Held in a midsized venue, it presented him as an arena star in the making. The setlist was split into different acts, each of which had sonorous titles that meant much the same thing ("Rebirth", "Transformation"). Screens displayed elaborate CGI visuals, starting in outer space and then landing on the pink planet that is Nas-world, where brightly coloured stately rooms and pleasure palaces provided a backdrop to his songs. There were many costume changes, a fantastically dandyish array of glittery crop tops, gold trousers, codpieces and 18th-century buckle shoes. They were designed in collaboration with New York fashion house Coach.

The music came from backing tapes. The vocals were partly pre-recorded too, intermixed with competent live singing and rapping by Nas. He has a low voice, verging at times on the lugubrious, as in the opening track "Panini", with its curious combination of an insouciant whistled melody and a glum hookline borrowed from Nirvana's "In Bloom". Eight backing dancers, all men, invariably shirtless, accompanied him. Their choreography was impressive and witty, ranging from balletic spins to vigorous twerking.

Drawing mainly on his debut album *Montero*, the setlist required padding to stretch to 75 minutes. The Western-themed "Old Town Road" was accessorised by a life-size puppet horse and the ingenious interpolation of Ginuwine's hit song "Pony", a classic of 1990s R&B. The celebration of sex in "Montero (Call Me By Your Name)" was boldly preluded by a comic film showing Nas in the role of a homophobic preacher at an evangelical meeting. But there were dull moments of padding too, such as the pausing of a new song to bring audience members on stage for a clumsily managed twerkathon.

Absent from this colourful but rather pre-formatted concert was the unscripted persona that Nas brings to his busy social-media life. The singer who needs someone to need him came across on stage as a showman-in-waiting, not yet sure how to navigate his need for the audience and its need for him. Learning how to be both a worthy symbol of progress and a fun, escapist pop star — allowing the latter room to breathe amid the earnest pressure of the former — is the challenge that awaits on his accession to the arena circuit.

welcometomontero.com

Lil Nas X combined declarations of love with a clumsy twerkathon
Aaron Idelson

FT BIG READ. CYBER SECURITY

Cryptocurrency theft has become one of Pyongyang's main sources of revenue, helping to fund its illicit weapons programmes. The regime's success also underlines the lack of regulation of digital assets.
By Christian Davies and Scott Chipolina

How North Korea became a crypto crime hub

Created by a Vietnamese gaming studio, *Axie Infinity* offers players the chance to breed, trade and fight Pokémon-like cartoon monsters to earn cryptocurrencies including the game's own "Smooth Love Potion" digital token. At one stage, it had more than a million active players.

But earlier this year, the network of blockchains that underpin the game's virtual world was raided by a North Korean hacking syndicate, which made off with roughly $620mn in the ether cryptocurrency.

The crypto heist, one of the largest of its kind in history, was confirmed by the FBI, which vowed to "continue to expose and combat [North Korea's] use of illicit activities — including cyber crime and cryptocurrency theft — to generate revenue for the regime".

The successful crypto heists illustrate North Korea's growing sophistication as a malign cyber actor. Western security agencies and cyber security companies treat it is as one of the world's four principal nation state-based cyber threats, alongside China, Russia and Iran.

According to a UN panel of experts monitoring the implementation of international sanctions, money raised by North Korea's criminal cyber operations are helping to fund the country's illicit ballistic missile and nuclear programmes. Anne Neuberger, US deputy national security adviser for cyber security, said in July that North Korea "uses cyber to gain up to a third of their funds for their missile programme".

Crypto analysis firm Chainalysis estimates that North Korea stole approximately $1bn in the first nine months of 2022 from decentralised crypto exchanges alone.

The rapid collapse last week of FTX, one of the biggest exchanges, has highlighted the opacity, erratic regulation and speculative frenzies that have been the central features of the market for digital assets. North Korea's growing use of crypto heists has also served to demonstrate the absence of meaningful international regulation of the same markets.

Analysts say the scale and sophistication of the *Axie Infinity* hack exposed just how powerless the US and allied countries appear to be to prevent large-scale North Korean crypto theft.

Only about $30mn of the crypto loot has since been recovered. That was after an alliance of law enforcement agencies and crypto analysis companies traced some of the stolen funds through a series of decentralised exchanges and so-called crypto mixers, software tools that can shuffle the crypto holdings of different users so as to obfuscate their origins.

In one of the few law enforcement actions since the theft, in August the US sanctioned the Tornado Cash mixer, which the US Treasury said had been used by the hackers to launder more than $450mn of their Ethereum haul.

The US has since designated the crypto mixer, alleging the tool was used to support North Korean hackers who were in turn supporting the country's weapons of mass destruction programme.

It also highlights the opportunities afforded by the unregulated world of crypto to many other rogue regimes and criminal actors around the world, with experts warning that the problem is likely only to get worse over the decade as crypto exchanges are increasingly decentralised and more goods and services — legal and illicit — are made available for purchase with cryptocurrency.

"We are not anywhere near where we need to be when it comes to regulating the cryptocurrency industry," says Allison Owen, a research analyst at RUSI's Centre for Financial Crime and Security Studies. "Countries are taking steps in the right direction, but North Korea will continue finding creative ways to evade sanctions."

Office 39

Like some of the communist regimes upon which it once depended but which it has long since outlived, North Korea's hereditary regime has a colourful history of engaging in criminal activity as a means to accumulate foreign currency.

In the 1970s North Korea's then ruler Kim Il Sung, the grandfather of present ruler Kim Jong Un, tasked his son and successor Kim Jong Il with establishing a cell within the ruling Workers' Party of Korea to raise money for the dictatorship's founding family.

Called Office 39, it was one of several entities created by the regime to bring in billions of dollars a year from schemes ranging from producing and distributing counterfeit cigarettes and US dollar bills to selling illegal drugs, minerals, arms and even rare animal species.

North Korean officials, diplomats, spies and assorted operatives were all mobilised in support of this illicit shadow economy, which continues to operate through a complex network of shell companies, financial institutions, foreign brokers and organised crime groups that facilitate the country's proliferation and sanctions evasion efforts.

Recent crypto heists show North Korea's sophistication as a malign cyber actor; under leader Kim Jong Un, below, the country's cyber capabilities started to garner international attention; Anne Neuberger, right, a top US official, has said cyber attacks have helped the regime finance up to a third of its missile programme
FT illustration; KCNA VIA KNS/AFP/Getty Images; Drew Angerer/Getty Images

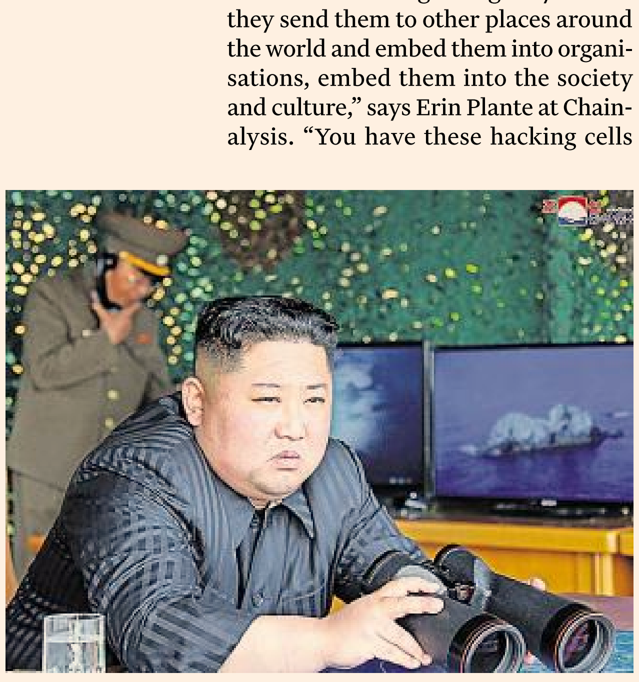
Pyongyang has also spent recent decades building up its formidable cyber capabilities, a project that dates back to the late 1980s and early 1990s when the Kim regime sought to develop its nascent nuclear weapons programme.

Regime defectors have described how Kim Jong Il saw the value of networked computers as an efficient means to direct regime officials while remaining in seclusion. He also saw them as a platform to underpin the country's nuclear and conventional weapons development.

Kim Jong Il is quoted in a book published by the North Korean army as having said that "if the internet is like a gun, cyber attacks are like atomic bombs". But it was only under his son Kim Jong Un, who assumed power in 2011, that the country's cyber capabilities started to garner international attention.

While less than 1 per cent of the North Korean population is estimated to have restricted and closely monitored access to the internet, potential members of the country's army of approximately 7,000 hackers are identified while still at school. They are then trained and groomed at elite government institutions, with some also receiving training and additional experience in China and other foreign countries.

"They train people who show early indications of being strong in cyber and they send them to other places around the world and embed them into organisations, embed them into the society and culture," says Erin Plante at Chainalysis. "You have these hacking cells based all around the Asia-Pacific region merging in with the rest of the tech community."



In 2014, North Korean hackers launched an attack on Sony Pictures ahead of its release of *The Interview*, a Hollywood comedy about a fictional assassination attempt on Kim Jong Un. The hack shut down the studio's computer network before threatening executives with the release of sensitive and embarrassing internal documents.

That was followed in 2016 by a raid on Bangladesh's central bank. Members of the Lazarus Group, the same syndicate that was behind the *Axie Infinity* hack, broke into the bank's computer network and lurked inside it for a year before issuing instructions to the Federal Reserve Bank in New York to drain $951mn of Bangladeshi reserves.

The money was transferred to a bank in the Philippines and was only identified because one of the orders contained a word that was also the name of a sanctioned Iranian ship, alerting US authorities. The hackers ended up getting away with less than 10 per cent of their haul.

North Korean hackers have also demonstrated their offensive capabilities, causing widespread chaos through ransomware attacks. In 2017, the Lazarus Group unleashed the devastating WannaCry virus, which infected at least 200,000 computers at hospitals, oil companies, banks and other organisations around the world.

The transactions on the *Axie Infinity* game were supported by Ronin Network, a so-called cross-chain bridge that links different blockchains, that is supposed to have a high level of security. Hackers gained access to five of nine private keys, digital compartments that contain key information allowing hackers to approve withdrawals.

According to Nils Weisensee, a cyber security expert with Seoul-based information service NK Pro, the *Axie Infinity* hack demonstrates how North Korean hackers can now "exploit new vulnerabilities in the latest blockchain technologies almost as quickly as they arise".

"Just a few years ago, North Korean hackers were specialising in distributed denial-of-service attacks, which is a relatively crude method of flooding your victims' servers with internet traffic," says Weisensee. "But if a DDOS attack is the cyber equivalent of beating someone with a baseball bat, then the successful raids on cross-chain bridges like Ronin and Horizon are the equivalent of stealing someone's wallet through a hole in their pocket they didn't even know existed."

'We are not anywhere near where we need to be when it comes to regulating the cryptocurrency industry'

Analysts cite the Bangladesh Bank heist as an example of just how much more labour intensive and time consuming it is to target traditional financial institutions. The North Korean hackers who infiltrated the bank's computer network had lurked in the system for a year before executing the theft. The proceeds were transferred through several banks to casinos in Manila, where operatives then had to spend several painstaking weeks playing baccarat with the stolen money so as to swap it with unsullied cash. The clean cash was then sent to Macau, and most likely onwards to North Korea.

The 'peel chain'

Cryptocurrency also opens a fresh opportunity for would-be money launderers. To avoid triggering alerts on crypto exchanges by making large deposits in one go, hackers use a so-called peel chain — setting up a long chain of addresses and "peeling off" small amounts of digital currency with each transfer. According to a US Treasury indictment from 2020, two Chinese nationals successfully transferred $67mn in bitcoin on behalf of North Korean hackers using this method, making 146 separate transactions between them.

"Because blockchain technology is a child of the internet, everything you need to know about its vulnerabilities can also be found on the internet," says Weisensee. "All you need is smart people, and the North Koreans have that."

According to researchers at Harvard University's Belfer Center for Science and International Affairs, North Korea has also been accumulating digital currencies through running its own crypto-mining operations, powered by abundant coal reserves that Pyongyang is unable to export due to UN sanctions.

'Unlike China, Russia and Iran, North Korea has no stake in the global financial system, and economically speaking they have almost nothing to lose'

The researchers note that the Ethereum blockchain's move to a much less energy intensive "proof of stake" mechanism, while less damaging for the environment, could give energy-starved North Korea the opportunity to increase the amount of revenue it can afford to generate through crypto mining.

North Korea has also been able to exploit the rise in popularity of non-fungible tokens, or NFTs — either by artificially inflating their value using a technique known as "wash trading", or by using NFTs to launder stolen funds, or through outright theft using spear-phishing attacks.

Weisensee says that the dizzying pace of development of blockchain technology affords North Korean hackers constant opportunities to innovate. "Crypto is evolving so quickly, and the North Koreans are so adept at tracking these developments, that they are regularly one step ahead of those who are trying to stop them," he says.

Identifying and tracking the methods deployed by North Korean hackers is difficult. Stopping them is even harder.

In 2018, US prosecutors accused a North Korean hacker, Park Jin Hyok, of carrying out the Sony, Bangladesh Bank and WannaCry attacks on behalf of the Kim regime.

"These activities run afoul of acceptable norms of behaviour in cyber space and the international community must address them," John Demers, then assistant attorney-general in the Department of Justice's national security division, said at the time.

The hack of the 'Axie Infinity' game illustrates how hard it is for countries to prevent North Korean crypto theft

But analysts note that neither Park, nor two more North Korean hackers identified by the US in 2021 as members of North Korea's military intelligence agency, nor any other North Korean citizens have ever been brought to justice for their role in hacking or cyber theft.

The US has had more success in pursuing foreign nationals accused of assisting North Korea's efforts. In April, a New York court sentenced American crypto researcher Virgil Griffith to five years in prison for helping North Korea evade sanctions amid his participation in a blockchain conference in Pyongyang in 2019.

But experts say that while Washington has taken action against a handful of entities including banks, exchanges and crypto mixers, nothing it has done appears to have meaningfully hindered North Korea's exploitation of the global proliferation of digital currencies.

In part, this is because of the nature of North Korea itself. Of what Demers described as America's four "principal adversaries in cyber space", North Korea is the only country able or willing to mobilise its entire state apparatus in support of its criminal operations.

Analysts note the difficulty in retaliating against North Korean cyber operations, given how little of North Korean society and infrastructure is connected to or dependent on the internet.

"North Korea poses a potential danger to our critical infrastructure, but it is hard to see how we can retaliate short of a total cyber war," says Desmond Dennis, a cyber expert and former special agent with the FBI and the US Defence Intelligence Agency. "That would likely be interpreted by Pyongyang as amounting to a conventional act of war, and against a state that possesses nuclear weapons."

But if the crypto heists have revealed something about the nature of North Korea, they have also exposed the lack of any meaningful global regulation of crypto itself. "Crypto is a totally new asset. A lack of any real global understanding and jurisdictional regulation can be utilised quite easily," says Rohan Massey at US law firm Ropes and Gray.

Even with the turmoil in crypto markets, some analysts believe that an increasing number of goods and services will be purchasable using cryptocurrency. If that happens, says Weisensee, it would allow North Korea increasingly to avoid the traditional financial system altogether, reducing the "choke points" through which the US and others can exercise their leverage.

"It's very possible that technological advances will allow us to gain greater insight into North Korea's operations — but stopping them is a different thing altogether," he says. "You could already use crypto to buy missile parts on the dark web years ago — so imagine what you could buy a few years from now."

The FT View

FINANCIAL TIMES
'Without fear and without favour'

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The China-US relationship needs to be managed

Biden and Xi talks before Bali summit seek to avert a dangerous deterioration

The most positive aspect of yesterday's talks between US president Joe Biden and his Chinese counterpart Xi Jinping is that they took place at all. Relations between the world's two largest economies have been going downhill with alarming speed — and Chinese officials had until recently stonewalled over a possible meeting of the two men on the sidelines of the G20 summit in Bali. But the world has already seen tensions over Ukraine erupt into a full-blown invasion by Russia's Vladimir Putin. A Chinese attack on Taiwan would be even more catastrophic.

A shift in US-China relations has been necessitated by Beijing's nationalist and authoritarian turn under Xi over the past decade, its human rights abuses in Xinjiang, and its increasingly vocal calls for "reunification" with the self-governing island of Taiwan. But Beijing was angered by US House Speaker Nancy Pelosi's visit to Taipei in August — which prompted a military show of strength by China — and Biden has gone further than previous presidents in pledging to defend the island. Last month, the White House imposed stringent export controls targeting China's advanced semiconductor industry.

Washington's determination to restrain Beijing's ambitions to surpass it as the world's leading military and economic power means further decoupling from China is inevitable. But Washington must at the same time manage relations with Beijing with care. It should be guided by three principles: that decoupling should not crash the global economy; that war must be avoided; and that China's co-operation is still needed on a range of global issues.

There are some similarities with the US-Soviet detente that took shape some years after the 1962 Cuban missile crisis — though the US and Soviet Union had already come to the brink of nuclear war, and economic ties were paltry. Detente was rooted in part in building contacts between functionaries at various levels. The US and China similarly each need to understand how the other thinks. It is positive, then, that Biden and Xi agreed to designate officials to keep talking. A potential path is open to more constructive relations.

China could begin by restoring judicial co-operation on issues such as extradition, and on drug enforcement, as well as bilateral climate change talks, which Beijing suspended after Pelosi's visit to Taiwan. Resuming military-to-military communications is also essential to mutual confidence and security.

For its part, the US has some room for manoeuvre in how strictly it implements its controls on semiconductors. It also has scope for restraint in its language over Taiwan. Biden took care yesterday to insist there would be no change to the "One China" policy, under which Washington acknowledges, but does not endorse, Beijing's view that Taiwan is part of China. Biden has capacity to engage in some behind-the-scenes manoeuvring should the next House Speaker seek to repeat Pelosi's trip to Taiwan — though the president has maintained that such initiatives are Congress's prerogative.

> Areas of mutual concern extend not just to the green transition, but also nuclear proliferation, pandemic prevention, and debt restructuring for emerging markets

In the longer term, Washington's drive to slow Beijing's acquisition of leading-edge military technologies should be combined with co-operation in areas of mutual concern. These extend not just to the green transition, but also nuclear proliferation, pandemic prevention, and debt restructuring for emerging markets.

Biden insisted in Bali the US would "continue to compete vigorously" with Beijing. But, as former Australian premier and China expert Kevin Rudd notes, competition between the two has been perilously "unmanaged". To avert a disastrous deterioration, the time has come for some careful management.

Opinion Society

FTX casts unforgiving light on effective altruism

Ewan White

Stephen Bush

If you are able to treat a child's intestinal parasites, should you? If you find the question difficult to answer, you might be an effective altruist.

Deworming initiatives became fashionable in international development circles following a 2004 study that showed that the treatment of intestinal parasites was not only cheap, easy and reliable, but that it led to significant improvements in children's broader health and educational outcomes — even among those who were not themselves treated for worms.

At the time, hookworm, roundworm, whipworm, and schistosomiasis plagued a quarter of the world's population. Deworming's moment in the sun coincided with the emergence of effective altruism, or EA, the utilitarian-inspired movement which focuses on using "evidence and reason" to best help others. In recent years its focus has expanded to include "tail risks" such as pandemics and artificial intelligence.

> We must accept there are some things we just can't know, but we can put more focus on what we do

Deworming charities were some of the most common beneficiaries of both direct grants and indirect recommendations from GiveWell, an EA-inspired charity. But subsequent studies have cast doubt on the effectiveness of deworming, with a debate raging among development wonks and the EA community, many of whom have now turned their backs on it.

In many ways, this is rather silly. It's not as if there is some body of evidence suggesting that having intestinal worms actually *improves* outcomes. And if you are a busy person seeking to make sure your charitable giving is having a positive impact, deworming charities remain a good bet. They are the kind of thing that effective altruism *ought* to be about.

The debate matters, though, because it helps us to understand the strengths and the weaknesses of EA, which now finds itself at a crossroads following the collapse of FTX, the crypto exchange.

FTX's failure has two consequences for EA. The first is financial. EA organisations were among the beneficiaries of founder Sam Bankman-Fried's largesse: his FTX Foundation planned to distribute at least $100mn to projects of EA interest and to EA organisations directly. The second is reputational, because Bankman-Fried, himself a self-declared effective altruist, had been inspired by (and celebrated by) prominent effective altruists.

It was after a talk on the subject that Bankman-Fried decided to go into finance, rather than working on animal welfare as he had once planned. As 80,000 Hours, an EA careers advice website, says: "Sam was convinced by the idea that it mattered less that he drove positive change directly than that he *enabled* positive change to happen." Will MacAskill, the co-founder of 80,000 Hours who gave the talk on "earn-to-give" philosophy that Bankman-Fried attended, has insisted that "if customer funds were misused, then Sam did not listen".

One aim of EA is to increase the number of "WALYs". This doesn't mean the number of people who think that cryptocurrencies are a respectable asset class, but the idea of maximising "wellbeing-adjusted life years".

That's a good aim, but the "worm wars" are an example of how it can be taken to ridiculous extremes. Effective altruists have spent time debating whether GiveWell and other EA organisations should be funding further studies into deworming's effectiveness, rather than just spending money on removing worms.

To be clear, what is being disputed here isn't that deworming works, or that it is cheap; it's that instead of just doing it, a better use of money and time would be on some randomised control trials about whether kids without parasites are better at learning and have longer-run life outcomes. Given the other threats that EAs might spend their money on, it is hard to see how anyone who argues that this is a better use of funds is being either "effective" or "altruistic".

"First, do no harm" is a good principle for doctors, but "first, do things we know work and have no negative consequences" is a great one for charitable giving. Funding low-cost medical treatments continues to be an excellent choice.

The lesson, from the Bankman-Fried affair and from the worming wars, is that we need to accept there are some things we just can't know. Ultimately we can't ever be sure if the young man who takes our advice to pursue a high-earning career instead of helping animals is going to cause financial misery, but we can know that someone who pursues animal welfare will *not*. We can't know for sure just *how* many WALYs deworming adds, but we can know that it works. A little more focus on what we know works, rather than what we think might, is almost always a good thing.

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Regulatory divergence poses threat for fund back-offices too

In the article by Adrienne Klasa and Harriet Agnew, Jeremy Taylor, UK chief executive of Lazard Asset Management, makes the point that regulatory divergence across European markets will make it difficult to have common products ("Fund executives warn over fragmenting regulation amid supply chain pressures", Report, November 11).

This is certainly true, but it only considers the effects on the investment and product teams — the glitzy teams.

A significant strain for asset managers operating across different jurisdictions is already being felt in the middle and back office — where regulatory reporting requirements are becoming greater as deglobalisation in financial markets accelerates.

The more that UK regulators diverge from their European counterparts, the more time will need to be spent in focusing on mundane, but vital reporting tasks.

When considered against the backdrop of "The Great Resignation", where employees want to feel challenged and fulfilled, it is hard to see how operations teams will retain stability from a staffing perspective. Operations teams don't want to be exclusively focused on these kinds of tasks — they want room to grow. Asset managers need to address this issue now — they can't expect the regulators to heed their warnings. Unless they can find a way to empower operations staff, the effects will be felt on the back office, not just the money makers on the investment desks.

Ian Manocha
Chief Executive, Gresham Technologies
London EC4, UK

Hybrid working changes the role of cities forever

Your Big Read on how the pandemic transformed Britain's commuter towns (November 7) raised interesting points about how communities are evolving.

"Dormitory towns" first emerged as a solution for a society that with the rise of the railway came to depend on the commuter as the driver of economic activity. The shift that the pandemic accelerated has enabled people to work in satellite offices within walking or cycling distance of their homes, thanks to the growing adoption of hybrid working.

The article suggested that co-working companies such as IWG are focused on city centres, yet this could not be further from the truth. A sizeable and rapidly growing part of our network is in suburban and rural locations. Take Gerrards Cross, Chippenham or Evesham in the UK or Destin, Florida or Bedford, New Hampshire in the US.

Our data show demand for workspaces outside city centres grew by over 30 per cent in 2022 and in the next year we will add 1,000 locations globally, the majority in commuter towns. Hybrid working is changing the geography of work, allowing easier access to the best talent, invigorating local economies and enriching communities. Not only this, but it's set to change the role of cities forever. Places like London, whose economy has been geared to meet the needs of millions of itinerant office workers, will need to evolve to become hubs for collaboration and entertainment.

Mark Dixon
Chief Executive, IWG, Zug, Switzerland

Arts cuts in London make country culturally poorer

During the pandemic, analysis by Arup showed that in the worst-case scenario, economic output from London's West End arts and culture sector was facing near wipeout due to lockdowns and imposed restrictions (Report, November 12). It was only with government support that this fate was narrowly averted.

Now, with the starkest bout of arts cuts in the capital for a generation, it's a case of wilful damage to the arts sector and London as a whole. Central London's dynamic arts sector and rich culture and experiences make the West End such a unique and special place, bringing in millions of tourists every year. Many of these visitors go on to visit other parts of the UK contributing £641mn to local economies in 2019.

It is hard to avoid the conclusion that short-changing London is going to make us all culturally and financially poorer while making the UK a less attractive destination for visitors.

We urge the government to reconsider the consequences of these cuts to the arts in London.

Ros Morgan
Chief Executive, Heart of London Business Alliance, London W1, UK

Simpson's 'stewed cheese and a sausage' can be saved

The behaviour of the landlord in respect of one of the City of London's most historic and revered treasures — Simpson's of Cornhill — is an absolute disgrace ("No more sausages: the forced end of a City institution", Opinion, November 12).

Quite apart from the very worthy crowdfunding plan now in place, mainly based on donations from individuals, I suggest that a more targeted fundraising programme be put into immediate existence — perhaps under the banner "The City Looks after its Own".

Every company in the City with a turnover in excess of, say, £100,000, (there must be a multitude of them) should put a flat £1,000 in the kitty — and feel forever embarrassed if it declines to do so!

For the millions made daily, or even hourly, in the Square Mile, this would represent no more than a pimple on an elephant — and Simpson's would be fit for purpose for another 265 years . . . and stewed cheese and "a sausage with that" would be saved for posterity!

John Fingleton
London W1, UK

OUTLOOK

AMERICA

Schools still have a racial segregation problem

by Patti Waldmeir

"Unless our children begin to learn together, there is little hope that our people will ever learn to live together."

Thus did Justice Thurgood Marshall, the first African American justice of the US Supreme Court, condemn the court's ruling in a landmark 1974 civil rights case, Milliken vs Bradley. The ruling turned back the clock on primary and secondary school integration in America, before it had barely begun.

Now the court is again gearing up for what could prove a momentous ruling on race and education in America, as it considers the fate of "affirmative action" in university admissions. But whatever the ruling, education experts say a far bigger problem remains: US primary and secondary (known as K-12) schools are still highly segregated by race, and the situation is worse today than it was 30 years ago.

I know what a segregated education looks like: there was one black child in the elementary school that I attended in the early 1960s, in a Detroit suburb. My high school yearbooks show page after page of white sports teams, a white marching band, a white student council and a white computer club. I counted six black faces in a school of more than 2,500 students.

In Milliken vs Bradley, the Supreme Court shot down the best remedy anyone could think of: Detroit area high school students like me were to have been bussed between outlying white suburbs and (mostly black) inner city schools. Court battles kept the plan on ice until I graduated, when the Supreme Court threw it out. But I was sure back then that the de facto apartheid of my school years would not survive.

I could not have been more wrong. A 2020 report from UCLA's Civil Rights Project chronicles the backsliding. When I graduated from high school in 1973, less than two-thirds of black students attended predominantly non-white schools; by 2018, 81 per cent did. Moreover, the percentage of black students in majority white schools almost halved between 1991 and 2018, from 34.5 to 19.1 per cent. "It's a shocking state of affairs," says Lee Bollinger, president of Columbia University and named party in seminal 2003 affirmative action cases involving the University of Michigan, of which he was then president. After the landmark 1954 Supreme Court ruling Brown vs Board of Education, which held that state-sanctioned segregation of US public schools was unconstitutional, "you had two decades of very serious work to try to correct for centuries of severe discrimination", he told me over the phone. "But since then you've had a number of decades of slipping back."

"The Milliken ruling profoundly set the stage," says Monte Piliawsky, an expert on race and education at Wayne State University in Detroit, "because it held that de facto racial segregation in schools is not unconstitutional."

Sherri Doughty, one of the authors of a recent report by the US Government Accountability Office on the resegregation of US public schools, says "the face of segregation has changed a lot" since Brown vs Board. Residential segregation explains a lot of today's school segregation. "Rich people live in certain neighbourhoods and poor people live in other neighbourhoods, and poor people tend to be people of colour," she says. And since schools tend to be funded largely from local property taxes, this means that non-white schools receive $23bn less funding than predominantly white ones, according to a brief filed by education experts in the recent affirmative action cases.

The GAO report shows some improvement: the percentage of white kids attending 90 per cent white schools declined from 22 to 16 per cent from 2014/15 to 2020/21. But the lead author of the report, Jackie Nowicki, says when black, brown and other non-white students of similar socio-economic status are grouped together, "you really don't see much change in the last 50 years".

Soon I will attend what will doubtless be an almost all-white 50th high school reunion. My generation did too little to change that. Will it take another half century to achieve Justice Marshall's dream of all children learning together? Maybe — if we are lucky.

The writer is a contributing columnist, based in Chicago

Opinion

When it comes to climate, we must start thinking about Plan C

John Browne

In 1997, I was the first big oil chief executive to acknowledge the risk posed by climate change, accept that we were part of the problem and pledge to become part of the solution. My peers at the time accused me of having "left the church". Whatever church that was, it is now dwarfed in size by the congregation that showed up in force in Egypt last week for COP27.

As far as the clichés of international diplomatic conferences go, Sharm el-Sheikh did not disappoint. Motorcades blocked the roads, hotel prices went stratospheric and lunch and water were in short supply. But talking to ministers, NGOs, businesspeople and campaigners, several important things became clear. The ambition to limit global warming to 1.5 degrees is at severe risk. Reducing greenhouse gas emissions — "climate change mitigation" — is proving to be very difficult because the incentives to change behaviour and reallocate capital are still largely missing, even though we have been talking about them for the past 30 years.

We have the technologies we need to reduce global emissions by up to 70 per cent, but we do not have the right price signals (in the form of a carbon tax) or risk appetites (in the form of balanced public and private sector risk sharing) which would accelerate investment in their deployment. As a result, warming could approach 3 degrees, even if today's swath of net zero pledges are delivered.

Although they dare not whisper it, most participants at COP know that the investment to deliver the technology may not be deployed in time to stop this trajectory. That is why the conversation has turned more decisively towards the "plan B" of climate change adaptation. This is good news: it might be plan B, but it is also a practical necessity as efforts to reduce greenhouse gas emissions fall short of what's needed, putting more and more lives and livelihoods at risk.

But the bad news is that adaptation is likely to be even more difficult to finance than mitigation. This is because it involves investment in infrastructure which would function just fine in the absence of climate change; and because it generates returns which are long-term, unquantifiable and indirect. In other words, it represents an even greater public financing challenge than emissions reduction.

If both plan A and plan B fall short, what about plan C? I was one of a few voices at COP this year calling for the world to pay greater attention to geoengineering of the oceans and atmosphere. This is not desirable, is fraught with risk, and does not need to be done immediately. But it does merit greater thought and consideration, particularly as it will take at least a decade to establish the scientific and bureaucratic institutions needed to govern this activity.

> There is much more to do to turn isolated examples of progress into systemic change

This is our insurance policy against the failure of plans A and B, and against the risk of reaching irreversible tipping points. The world cannot afford to hope for the best by ignoring it.

The glue that could bind mitigation, adaptation and geoengineering into a coherent system is, of course, a carbon price. We remain a long way from this, but we do now have real-world examples of incentives and appropriate levels of risk-sharing coming together to deliver progress. The US Inflation Reduction Act is a prominent example of massive fiscal and industrial policy for the net zero age. Another is the proposal made by US climate envoy John Kerry to raise and transfer the proceeds of a *quasi* carbon tax to the Global South.

At COP27, I also detected a welcome sense of urgency about the need to establish carbon credits which are robust, tradeable and insurable, thereby generating reliable sources of revenue which can be channelled back into the financing of mitigation and adaptation efforts. The Integrity Council for the Voluntary Carbon Market and the Voluntary Carbon Markets Integrity Initiative are leading on this, as is Bloomberg Philanthropies which plans to establish a carbon credit oversight body called The Global Carbon Trust.

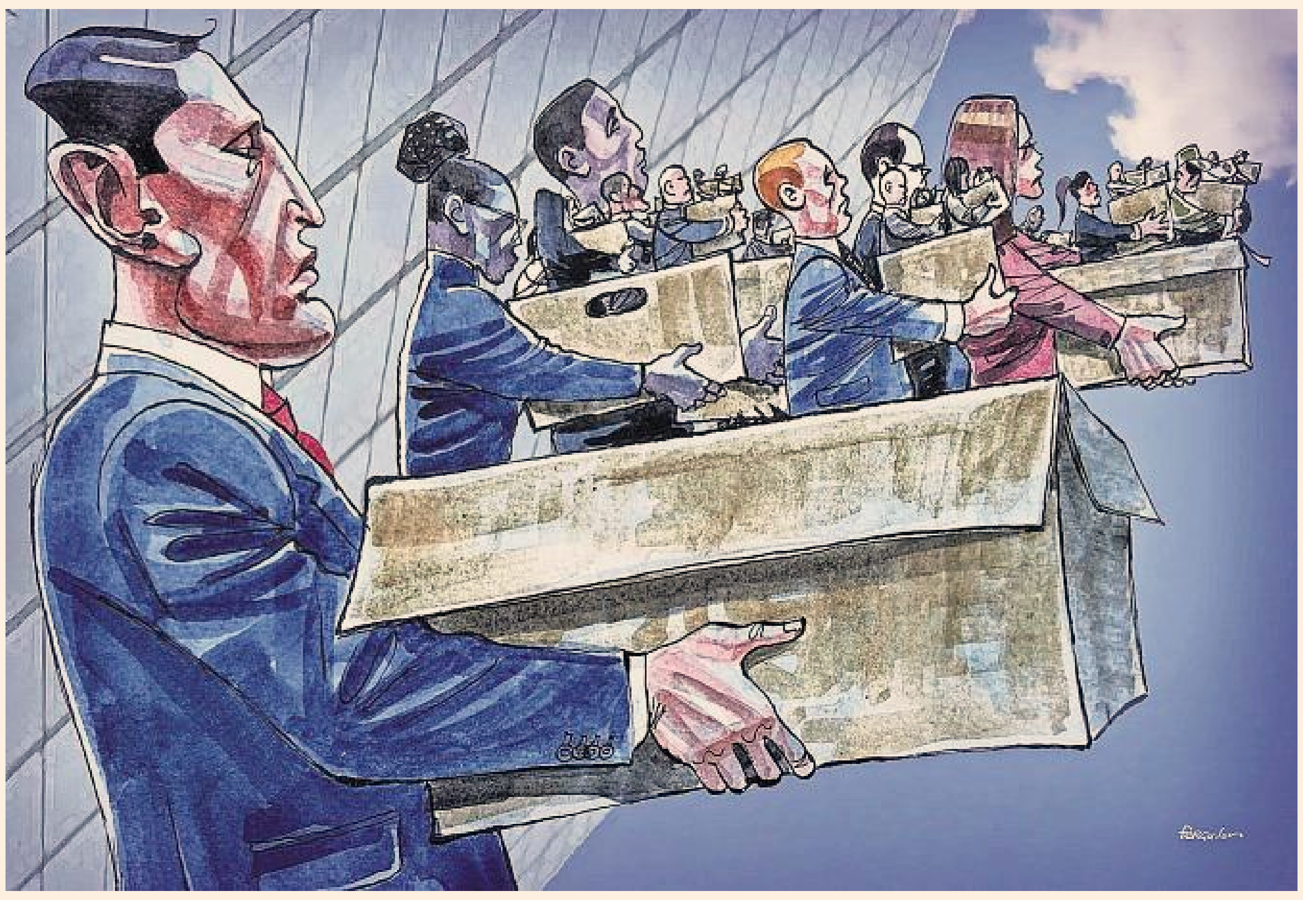
There is much more to do to turn isolated examples of progress into systemic change. But until then, it is incumbent on all of us to do what we can with imperfect markets and imperfect institutions. Risk-averse multilateral development banks, for example, can be sidelined in favour of alliances between private investors and regional development banks which have a more realistic approach.

Meanwhile, greenwashing and the newly discovered "green hushing" should be replaced with a practical set of mandatory environmental, social and governance disclosure requirements. Pragmatism executed at speed is better than perfection delivered too late. A motto for COP28, perhaps?

The writer is chair of BeyondNetZero, a climate growth equity venture. He was CEO of BP and is the author of 'Make, Think, Imagine'. He writes in a personal capacity

Tech lay-offs teach us a lesson

EMPLOYMENT
Sarah O'Connor



Once upon a time, young graduates thought they had a choice to make: they could become rich but miserable in an investment bank or law firm, or they could live without a huge salary but do something more fun. Then the big technology companies came along. Suddenly, it was possible for someone with a certain set of skills to have fun and get rich at the same time.

The tech firms seemed to represent a less hierarchical world of work where everyone wore jeans and T-shirts and merit was what mattered most. The salaries were high and the stock options plentiful. If you were lucky, your employer would also take care of the boring parts of life, doing your laundry for you, cooking you meals and taking you home at night. This year, tech companies accounted for five of the top 10 places to work in the US based on employee reviews on Glassdoor.

Policymakers and economists soon came to see tech workers as the archetypal winners of the 21st century economy: firmly at the "lovely" end of the growing gap between "lovely" and "lousy" jobs.

When some employees in the sector tried to unionise, the response from companies and investors was often to argue these were already dream jobs, so what was the point? As one investor put it, tech workers trying to unionise were "appropriating the language of exploited coal miners while enjoying the most privileged, white collar work experience in human history".

That story has been punctured by a series of mass lay-offs by tech companies in recent weeks. Meta has sacked 11,000 workers or 13 per cent of its workforce. Elon Musk, Twitter's new owner, has reduced the group's headcount by half. Amazon plans to cut about 10,000 jobs, while Stripe, a private payments company, culled 14 per cent of workers. It has been a brutal experience for staff.

In most cases (Twitter is a somewhat different story) the job cuts are the reversal of a recent hiring binge. Tech companies had bet on the continuation of an unusual macroeconomic environment that was in fact about to end. Consumers are no longer confined to their homes with only ecommerce to spend their money on. Interest rates are no longer at rock bottom.

It's hardly the end of these companies. Meta still has more staff than it did last year. But the mass lay-offs do offer a couple of lessons.

The first is that, whether or not everyone is wearing jeans, many tech companies are highly autocratic. It was striking — and refreshing — to see chief executives take personal responsibility for the lay-offs. But it was also a reminder of how much power they have.

At Meta, for example, investors have been increasingly frustrated by how much money chief executive Mark Zuckerberg was sinking into the "metaverse". But Meta's dual share structure allows him, with 13 per cent of the equity, to control more than half the votes. "I made the decision to significantly increase our investments," Zuckerberg wrote in a memo to staff last week. "I got this wrong, and I take responsibility for that."

The speed of the lay-offs by these global companies has also crashed into the spirit of employment law in the UK and Europe. "In many countries around Europe, you need to give warnings to public administrations or works councils or trade unions, even if the company is not unionised, you have to have a plan that mitigates the social impact of your choices," says Valerio De Stefano, a professor at Osgoode Hall Law School in Toronto. The idea of these laws is not to prevent companies from making lay-offs, he says, but to make sure they happen fairly and with due warning. "We have a very rude awakening now, it is happening without any control or consultation, just someone who says: 'Sorry, it's my fault'."

> Benevolent dictatorships can seem fine until they are not so benevolent any more

The experience underlines the fact that benevolent dictatorships can seem fine until they're not so benevolent any more. Even people who have kept their jobs are seeing some benefits change. At Twitter, Musk has announced that everyone must work at least 40 hours in the office, upending life for people who had planned on remote work.

Trade unions hope the lay-offs will help them to make the argument that unions are not just about trying to improve poor working conditions, but also about having a real voice and a seat at the table. Mike Clancy, the general secretary of UK union Prospect, says the union has some members at Twitter and hopes to recruit more in the tech sector. "There's often a progressive veneer — we're all techies together," he says. "[The] whole ambience is one of 'we offer a different employment proposition' — no, you don't when it comes to jettisoning labour, do you?"

The other lesson is not to get too carried away with self-regarding language about the "war for talent", which was ubiquitous in the tech sector until recently. There are talented people in all walks of life. What matters for pay is supply and demand. Low-paid workers in the US have been getting big pay rises in nominal terms this year. No one is calling that a "war for talent"; they are calling it a "labour shortage".

Tech companies might have offered amazing perks, but people don't need dream jobs as much as they need jobs that treat them decently. The thing about dreams is that they disappear when you wake up.

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Post-pandemic fiscal spending bears much of the blame for US inflation

Glenn Hubbard

US inflation has been very high since the economy emerged from Covid-19 (although annual consumer price growth slowed to 7.7 per cent in October). Much analysis of this phenomenon has centred on the mix between "supply" and "demand" factors and Federal Reserve policy errors. While both areas are important, so, too, are fiscal spending excesses. Understanding this can offer lessons to policymakers about what to do now and how best to respond in future crises.

During the pandemic recovery, supply factors such as high energy prices, broken supply chains and business closures played a part in fuelling inflation. Research by Julian di Giovanni at the Federal Reserve Bank of New York suggests that supply shocks may account for 40 per cent of inflation, with the remaining 60 per cent explained by shocks to aggregate demand. Certainly excess demand remains a very important generator of high inflation.

The Fed's expansionary monetary policy in the post-pandemic period, along with forward guidance and a new framework suggesting the maintenance of these policies, raised demand in an economy hit by supply constraints. Even as early as late 2020, the Fed was arguably behind the curve. By not raising the federal funds rate until spring 2022, it lost control of inflation. But while it can be faulted for misjudging the state of aggregate demand and staying behind the curve for so long, fiscal policy also contributed to pushing up inflation.

The Covid-19 experience is instructive. While the initial economic shock reflected supply chain disruptions and lockdowns, there were real risks of sharp declines in aggregate demand from job losses and lost production and investment. Fast-moving responses such as the Cares Act, passed in March 2020, focused on maintaining worker incomes and business continuity during the lockdown. Early action did forestall a collapse in aggregate demand but as the economy's recovery took hold, additional federal spending — particularly the blowout in the American Rescue Act — added to demand in a supply-constrained economy. Again, this proved a recipe for inflation.

Economists, notably John Cochrane of the Hoover Institution, have formalised the link between fiscal policy and inflation. Suppose, Cochrane has argued, that during the pandemic and the recovery, the government significantly increased expenditure, electing not to cut other spending or raise taxes (this is, in fact, similar to the fiscal path followed). And suppose also that the government will not default on Treasury bonds issued. To cover the higher borrowing, "revenue" must come from reduced values of nominal debt via higher inflation. Accommodating the above-baseline spending in the Trump and Biden administrations would require a burst of inflation in the short term to reduce the real debt value.

> While the Fed misjudged the state of aggregate demand, policymakers also contributed to the rate rise

Under this interpretation, inflation will remain elevated until the cumulative effect on the price level reduces the real value of the debt sufficiently to pay for the higher spending. Because this increase in prices was largely unanticipated, nominal interest rates on Treasury issuances did not at first rise. And, while the price level jump from spending is permanent, inflation should revert to trend if the Fed pursues policies consistent with its 2 per cent inflation objective.

To consider excessive government spending as a culprit along with the Fed's loose monetary policy, it is useful to draw a contrast with policy in the global financial crisis of 2008 and the subsequent economic recovery. As in the pandemic, the Fed kept short-term nominal rates at zero for a long time and expanded its balance sheet more than fourfold. Both inflation and inflationary expectations remained anchored at around 2 per cent — with actual inflation sometimes lower — during the decade after the onset of the financial crisis. A key difference, though, was that fiscal policy expansion was comparatively weak relative to that of the pandemic recovery.

Particularly following last week's midterm election results, there are three lessons for today's policymakers. First, large spending increases in a crisis have consequences for inflation and not just for real aggregate demand in the economy. Second, to reduce the risks of spending blowouts and attendant inflation, policymakers could consider precommitting to more modest spending in response — on unemployment insurance benefits, individual rebates and/or transfers to state — triggered by changes in output or employment. Finally, despite the temporary fiscal surge, the Fed should pursue monetary policy consistent with its long-term objectives for inflation.

The writer is a professor at Columbia Business School, author of 'The Wall and the Bridge' and was chair of the Council of Economic Advisers under President George W Bush

Sunak needs Johnsonism, just without Johnson

POLITICS
Sebastian Payne

What precisely is the purpose of Rishi Sunak? Scarcely anything is yet known about his agenda for manoeuvring the country out of its present funk. Many of his pledges from the Conservative leadership campaign in the summer have dissipated, creating a void.

Speaking outside 10 Downing Street for the first time last month, Sunak pledged to revert to the Tories' 2019 manifesto. That was notable for its "Get Brexit Done" slogan, but had far more depth and ambition than is often acknowledged. With its bold plans for devolution, expansion of the railways and boost for science, it remains the best blueprint for fixing the country.

The manifesto is so tied to Boris Johnson that it is the urtext of Johnsonism: attitudes broadly leaning left on economics, tilting right on social and culture issues. It was written with the "red wall" of pro-Brexit former Labour heartlands front of mind, but managed to unite the wider Tory voting base.

Liz Truss, during her brief calamitous time as leader, repudiated Johnsonism (one of the reasons for her fall). Sunak must now fully embrace it. In Thursday's Autumn Statement, his priority is to stabilise the nation's finances and regain market confidence. Yet that cannot be all of what he exists to do.

As a former chancellor, he is well aware that the UK faces grave productivity and growth crises. Too much of Britain suffers from a lack of equality of opportunity. All the ingredients of the 2019 platform — skills, infrastructure, sustainable investment in public services — can reverse the decline. Crucially, it also pledged tax cuts when possible.

> Britain faces grave crises, but all the ingredients of the 2019 Tory platform can reverse the decline

Johnsonism without Johnson, however, must adapt to a different reality. Since the manifesto was penned, the UK has suffered two once-in-a-generation events: a pandemic and war on the continent. Both have hit the country's finances and their effects on the political economy will last for decades.

The 2019 ambitions cannot survive intact. Some investment will have to wait until inflation is lower. The government could not have been clearer that spending cuts are coming. But every cut risks the ire of Tory MPs, all of whom face re-election in as soon as 18 months. Tangibles are their best hope of proving that the promise of 2019 has been kept.

In every choice Sunak makes in the Autumn Statement, he must put levelling up first. Northern Powerhouse Rail, a project to better link the cities of northern England, is essential. The same is true for buses, vocational education and the NHS. Businesses want levelling up, too — they know society does not stop at the office door.

None of this will be easy. The 80-seat majority of three years ago has withered into a raucous group of Tory MPs lacking the drive and determination for difficult circumstances. Sunak will not be able to command the same level of loyalty as Johnson.

There are key lessons from his predecessor. Johnson was undone by his lack of grip — be it of his Downing Street team, within Whitehall or relations with his MPs. All three are critical for Sunak. His No 10 should be agile but experienced; the efforts against Whitehall inertia robust; his relations with Tories cordial and regular.

For him, the route to remaining in power is slender but obvious. The Tories were already facing a slog to win a historic fifth election; now the only viable path is to hold on to as much of the red wall as possible, while binding together the other parts of the Tory coalition.

The prime minister has a narrow window: he is just about more trusted than his Labour opponent on the economy and the Tories have returned to about 30 per cent in the opinion polls since he became leader. That will not last. He needs a plan to make the most of the his time in No 10. Drifting into managerialism means decline and fall.

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China property: hit save

Investors in China property stocks have been a sceptical bunch. No amount of reassurance from policymakers could stem slides of more than 70 per cent in the shares of real estate groups. Yesterday that all changed. The sector rallied in response to liquidity-boosting measures by Chinese regulators.

But the package, while helpful for short-term financing, is unlikely to bring an end to sector woes. Investor sentiment has weakened too badly, as rising rainy-day savings demonstrate.

Shares of Country Garden, China's largest property group, rose more than 40 per cent yesterday. Local peers Logan Group and KWG rose more than 30 per cent. Real estate bonds, many of which were down to below 10 cents on the dollar, more than doubled.

But the real problem can be found in an unexpected figure. New household savings hit a record Rmb13.2tn ($1.8tn) for the first nine months. Equity investors have pulled money out of the property sector and parked it in longer-maturity savings accounts. Home prices are continuing a record slide that has lasted for more than 13 months. New-home sales at the biggest developers fell almost 30 per cent in October. Investors who formerly saw property shares as bulletproof now view them as among the riskiest assets.

The sheer size of the sector's debts means a state bailout should not be expected. Developers have $120bn of debt maturing this year alone. Regulators are set on reining it in.

Zero-Covid policies mean developers face sales hurdles. It is telling that shares in local lenders have not rallied. Non-performing loans to the property sector are growing rapidly, as announcements from the country's largest lenders, including Industrial and Commercial Bank of China and the Bank of China, reveal.

Credit quality is deteriorating at small and medium-sized lenders due to a rise in mortgage defaults. Lending to the property sector has continued to rise this year despite growing bad loans. That reflects the buffer role banks are pressed to play to minimise the negative impact on the economy.

Investors who envisage a wholesale bailout are deluding themselves. At best, new measures will help developers complete some unfinished projects and pay off urgent debt maturities into early next year.

State assistance is a band-aid, albeit a big one, over a deeper problem.

EU defence: trigger happy

In its 130-year history, German munitions-to-automotive group Rheinmetall has seen epochs come and go. With its acquisition of Spanish defence group Expal, it may have fired the starting gun for consolidation in Europe's defence industry.

It is not difficult to see why Rheinmetall put Expal in its crosshairs. Germany — shaken out of its military ambivalence by the Ukraine war — should spend a lot more on defence.

Factoring in rising base spend plus a €100bn special fund deployed over five years, it will invest about €70bn a year on average, up 60 per cent over 2019.

That suggests a bottleneck in production capacity. Low stocks of ammunition are one sticking point.

Enter Expal, the Spanish munitions group owned by Maxam — heir to Alfred Nobel's explosives company — in turn partly owned by private equity group Rhône Capital. Expal has spare capacity to double sales from €400mn, Rheinmetall reckons.

Expal's owners are capturing some of the upside. On an ebitda margin of 30 per cent, the purchase price implies an enterprise value to ebitda multiple of 10 times, a near-20 per cent premium to the sector, on S&P Global data.

But if Rheinmetall really can double Expal's sales, that falls to 5 times — a discount to the defence sector on 2025 estimates. On top of that, the deal makes strategic sense, bulking up Rheinmetall's scale in a key segment.

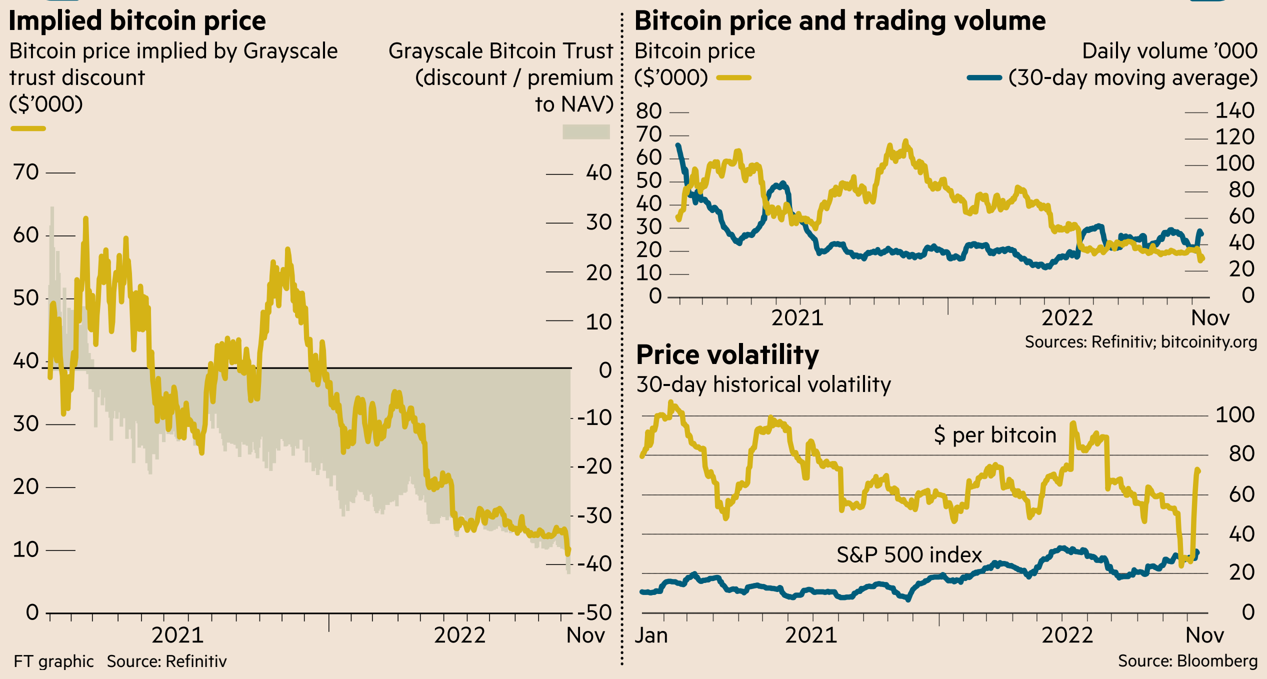
Other companies may well follow Rheinmetall's lead. Defence spending is on the rise Europe-wide. Italy, Sweden and Denmark have committed to invest 2 per cent of GDP each.

The continent's defence groups are likely to prowl for midsized acquisitions. There is strong strategic rationale for the fragmented industry to look into larger deals, too.

Creating an EU-wide defence champion, with the scale to optimise R&D spend, would be a worthwhile objective in the current geopolitical environment — but much, much harder to pull off.

FTX/bitcoin: rockets from the cryptos

Despite the collapse of crypto exchange FTX, bitcoin price movements have been subdued. They were briefly less volatile than those of the S&P 500 in October. Institutional investors remain disengaged, as reflected in the steep discount of listed bitcoin vehicle Grayscale



Following the spectacular collapse of FTX into bankruptcy last week, investors have reportedly been rushing to withdraw funds from rival exchanges. Contagion fears have focused on Crypto.com, a Singapore-based exchange. But the reaction of bitcoin has been oddly muted.

Chief executive Kris Marszalek said he would publish proof of Crypto.com's reserves "within weeks". This seemed a tardy way for a data-driven business to forestall an incipient run by investors. The statements of crypto entrepreneurs now need verification by boring, old-fashioned auditors, it seems.

FTX appears to have net liabilities of some $8bn. Classic smashes of financial companies often feature steep asset mark-ups that come unstuck. Authorities in the Bahamas, FTX's base, are investigating whether criminal wrongdoing occurred.

It is reasonable to surmise that counterparty exposure will be concentrated most toxically in crypto groups. Their main assets are digital assets, which they would scramble to dump in any dash for real cash.

However, prices have moved little, given historic volatility. Bitcoin has fallen 20 per cent this month. But daily movements of equivalent scale have disappeared. This is odd at a time when volatility of the US stocks that bitcoin previously mirrored has been rising.

Using trailing volatility measures, Bitcoin even fell below S&P 500 volatility at the end of October, the first time since March 2020. Bitcoin's calm and an unusually long period of rangebound trading around $20,000 belied higher trading volumes.

Bitcoin can hardly have become less risky. Chartists would insist it is defaulting to "resistance levels". Or some other mystery factor is supporting its price.

Crypto enthusiasts, for all their past support for bitcoin, are declining to invest at a big discount to historic prices. As for conventional investors, their valuation is implied by the 41 per cent discount at which shares in Grayscale's bitcoin investment trust trade relative to net asset value. That points to widespread and entirely rational fears that contagion is spreading across the crypto industry.

Aveva/Schneider: bump and dump

Bumpitrage, where activists press would-be acquirers for better terms, can be risky. But minority investors in UK software group Aveva have succeeded in wringing a better offer from Schneider Electric. The French group increased its offer by 4 per cent on Friday, valuing Aveva at £9.8bn. Schneider's offer is final. Amended terms, not just the higher price, are likely to get holdouts over the line.

Even so, investors, including arbitrageurs at hedge fund Davidson Kempner, have cause to view Schneider's bid as opportunistic. Even with a 47 per cent premium, the £32.3 per share offer is well below the £42 where shares peaked last year. Earnings multiples suggest a 30 per cent discount to comparable software deals and to Aveva's past valuation.

Missed earnings and slowing revenues have weighed on shares. So have lower tech valuations. But the de-rating was overdone. Earnings estimates have only fallen a tenth since the start of the year. The switch to a software-as-a-service model should lead to steadier longer-term cash flows, even if associated costs squeeze short-term earnings. Governance issues muddy the waters. Aveva's chief is ex-Schneider. Similar overlaps apply to others on the team and board.

Schneider, which holds 59 per cent of the shares, needs the support of 75 per cent of minority shareholders for the proposed scheme of arrangement to go through. Davidson Kemper with 3.8 per cent of the shares appeared to have rallied enough support to block it, with just 6.2 per cent more needed.

That outcome is unlikely. Those unsatisfied with the bump have another incentive to go along. Schneider granted itself the option to switch to a takeover offer from a scheme of arrangement. It would need 90 per cent of the shares to achieve the same squeeze out. But with 75 per cent, Schneider could choose to de-list Aveva instead. Long funds would then feel forced to sell long before arbitrageurs made for the exit.

Oatly: tired and emulsional

Swedish oat-milk maker Oatly is losing its froth. The company deployed quirky advertising and marketing to popularise a dairy alternative. Oat milk is now one of the fastest-growing plant-based milks in the US. But Oatly may have bitten off more than it can chew.

The group's ambitious plan to build and operate its own factories has run into repeated delays and problems. This has left Oatly unable to meet demand. Rivals have taken advantage of the mis-step to grab market share.

Oatly's operational challenges have also left it awash with red ink rather than vegan milk. Losses more than doubled to $108mn during the third quarter compared with the same period a year ago. Sales, up 7 per cent during the quarter, were hurt by the stronger dollar, zero-Covid restrictions in China and US production woes.

Do not expect the pressure to let up soon. Oatly has lowered its full-year outlook. It now expects revenue for 2022 of $700mn-$720mn, compared with $800mn-$830mn forecast just three months ago.

Oatly says it is moving to cut costs and will shift to a more "asset-light" model. This would probably involve contracting third parties to produce some of its oat milk rather than building more production facilities.

Unfortunately the moves may be coming too little too late. Once the darling of the oatmilk world, Oatly has seen its share of the market gobbled up by rival brands, including Planet Oat and Chobani. Bringing customers back would involve a higher marketing spend or deeper discounts. Both of those would be counterproductive when Oatly is in cost-cutting mode.

The group went public in May 2021 in an offering that valued it at about $10bn. The shares were priced at $17 apiece. They are now worth just a little over $2 after the stock dropped another 12 per cent yesterday. That leaves Oatly trading at just 1.2 times forward sales. Investors will be left with a very sour aftertaste unless Oatly gets costs under control.

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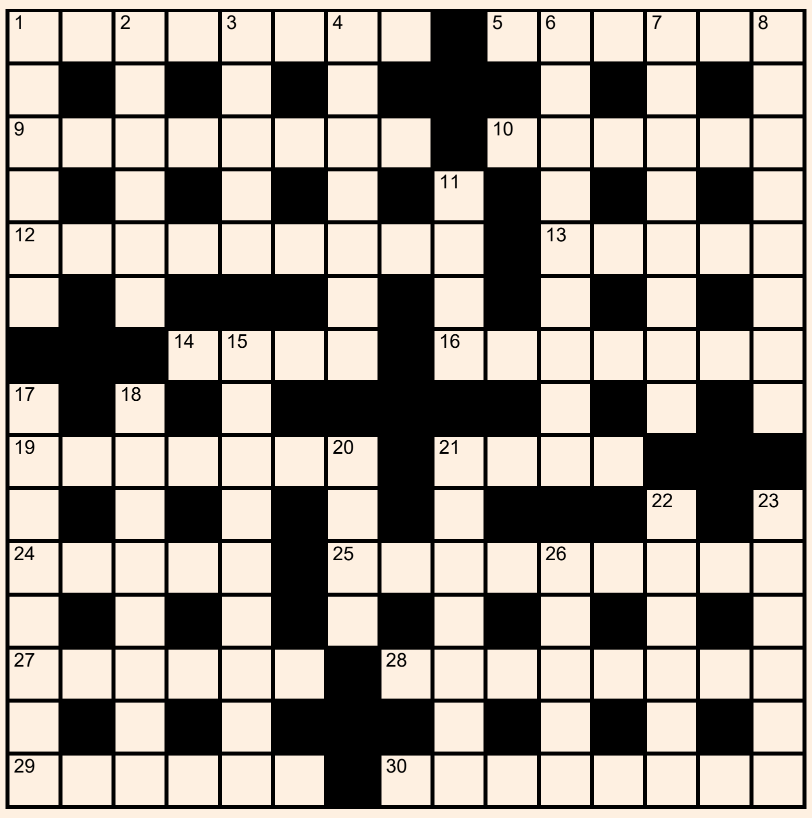

ACROSS
1 Murder is detective's province (8)
5 Sailor has uniform tucked in and eyes front to show respect (6)
9 Stops lads eating junk and fries essentially (8)
10 Miss fellow cutting head in fall (6)
12 Put down sandwich container and brewed tea (9)
13 Holy woman's heartily rejoicing, bearing suffering without complaint (5)
14 Talk with bowler perhaps, following century (4)
16 One's cross, drawn into horseplay with practical jokers (7)
19 Not knowing French, article's a struggle to penetrate (7)
21 Sketched Doctor with bridge partners (4)
24 Get quietly drunk after parents finally divorce (5)
25 Photocopy amendment to procedure (9)
27 Collision has traffic, initially better on motorway, turned back (6)
28 Boot gang off sledge (8)
29 Agreed to recycle odds and ends sons left out (6)
30 Intellectual from CERN abridged book, cutting real analysis (8)

DOWN
1 Stop taking sides, recklessly heading for trouble (6)
2 Embarrassed sailor boy coming aboard scruffy (6)
3 See you in France - you said to follow crazy idea! (5)
4 Approach prisoner with discretion (7)
6 Something only a fool would do, like admitting fix over match (1,4,4)
7 Entire organisation's bankrupt by November (8)
8 Use drill (8)
11 Knit up edge round top of sweater (4)
15 Try and teach relaxation for pain (9)
17 Problem with mission no-one raised (8)
18 Dashed good work everyone put in on education (8)
20 Regret turning up with zero cash abroad (4)
21 Record in old collection has soldiers' lament (7)
22 Old Queen caught posh gal acting common (6)
23 Vegetable from marsh eaten primarily in the Netherlands (6)
26 Old quarter has a bit of atmosphere (5)

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